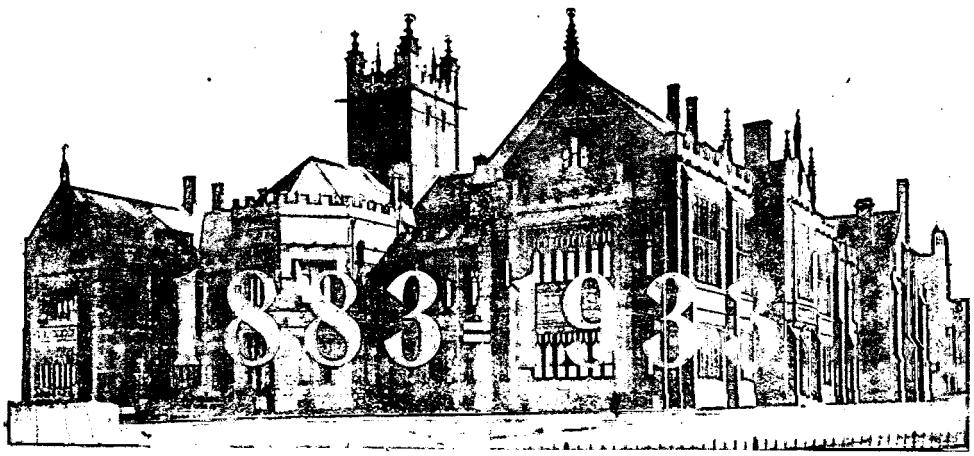
SYDNEY UNIVERSITY MEDICAL JOURNAL

JUBILEE



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University of Sydney Medical Society

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THE MEDICAL SCHOOL, UNIVERSITY OF SYDNEY.

Photo by Dr. S. L. Spencer.

SYDNEY UNIVERSITY

MEDICAL JOURNAL

Vol. XXVII. (New Series.) Part 2—Jubilee Issue. SEPTEMBER, 1933.

Editorial

THE MEDICAL SCHOOL JUBILEE.

THE present occasion, on which we celebrate the Jubilee of the Sydney University Medical School, marks an epoch, the close of an era and the dawning of another. The fifty years that are just past have seen the idea of a Sydney University Medical School bear fruit; they have seen the conception, materialisation and abundant justification of "Stuart's folly" as the centre of our medical education; towards their close they have seen a new shape looming up near the Royal Prince Alfred Hospital, the Rockefeller Institute, that is now completed and equipped, and synchronously with the Jubilee Celebrations, will be thrown open as the new Medical School.

This, then, is a time for looking backward and for "praising famous men" whose foresight, influence, energy and wisdom have in the last fifty years brought our Medical School (as a medical school) into the front rank of medical schools of the world. Accordingly, in the present issue, which is the largest and most ambitious of our thirty-eight years' existence, will be found, that the present generation may come to know them, reminiscences and portraits of these men, and a brief history of the great institution they built up.

With our new Medical School, munificently endowed, ready constructed and equipped for us, we may confidently expect that those who will occupy and administer it will found an institution even greater than the old. Their responsibilities are grave, but they will not have the opposition that the builders of the old Medical School overcame by their vision and dour determination.

May we not hope that a school which in its infancy produced a Hunter and an Elliot Smith, will as it expands into splendid maturity, earn world-wide respect, not only for the high excellence of its teaching, but, as well, for the brilliance of its research. We cannot wish this new generation in their youth and zeal better than that the mantle and the spirit of their predecessors may invest them, and their divine spark of moderation, courage and wisdom be breathed into them.

A MESSAGE

From Professor Grafton Elliot Smith

"My earliest recollection of the Medical Society goes back more than forty years, when the Council was faced with the problem of deciding whether the Society should be allowed to expire. We then decided that every effort must be made to prevent its extinction and to reanimate it. I cannot remember whether I was secretary or president at the time, but I have not forgotten that our decision imposed on me the obligation of providing agenda for a series of meetings. I remember opening discussions in hypnotism and massage. We also decided to start a journal, which at first appeared as a supplement to "Hermes." Ten years later, when passing through Sydney, I attended a meeting of the Society, under the chairmanship of that genial sportsman, the late Dr. J. F. Flashman, and was gratified to find in the well-attended and enthusiastic meeting ample justification for the action taken in 1892."

The Sydney University Medical School, 1883-1933

An Historical Outline

By S. H. LOVELL, M.B., B.S.

THIS year, we of this generation are privileged to celebrate the jubilee of the Medical School of our University of Sydney. The Faculties of Arts and Law are proceeding to their centenaries, and the Peter Nicol Russell School of Engineering has its jubilee at hand, but we will ask our fellows to forgive us when we momentarily forget our fundamental attachment to the University as a corporate body, and glorify one of its essential faculties.

On this occasion, let us remember with dutiful respect, those great men who, by their foresight and endeavour, established the University of Sydney and its School of Medicine; let us remember all those who, by their benefactions and their labours, have carefully nurtured the School through these past fifty years; let us also remember all those who have been taken from our midst, but by their individual successes, have in no small way contributed to the reputation of the Faculty—let us join with all these in spirit and in person in the glorification of an institution which, with its proud record of achievement, can justly claim a foremost position among the great Medical Schools of all time.

Those who have considerately watched the whole or greater part of the progress of this sturdy offspring of the Alma Mater must be amazed by its achievements, while those of us of later generations, who have been privileged to enter its halls, are duly thankful for this magnificent institution which has been so soundly established and carefully maintained.

The review of those first fifty years provides a wealth of romantic detail—a detail which one feels is often overlooked to a marked degree by many as they pass through the faculty—and it is unfortunate that, on an occasion such as this, space in a journal precludes an exhaustive and authoritative record of the history of the School.

Early Movements.

Throughout the earlier part of the nineteenth century, spasmodic attempts were made to establish higher education in the colony, but none was carried to a practical completion. Finally, in 1849, W. C. Wentworth presented a Select Report to the Legislative Council, and this may be

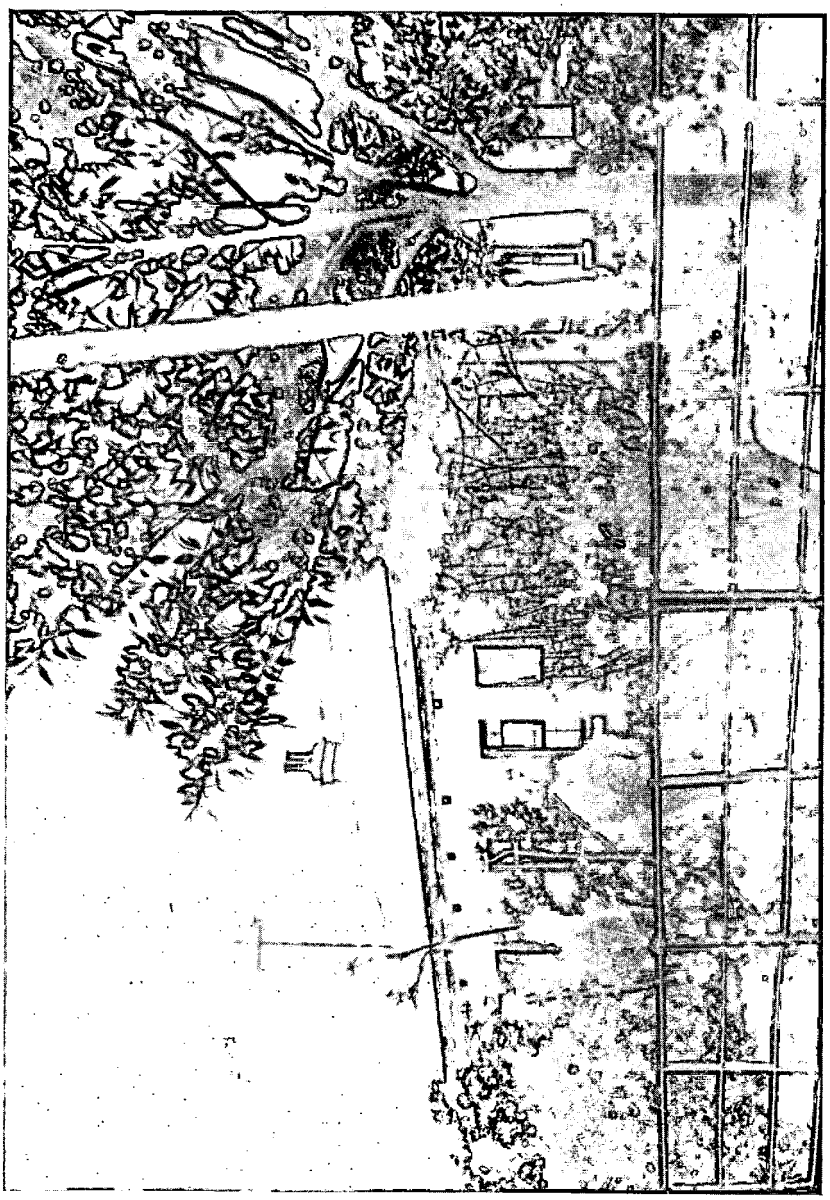
considered as the first definite move in the establishment of the University of Sydney. Five chairs were recommended, as follows (salaries in parentheses):—

1. Classics and Mathematics (£800).
2. Chemistry (£400).
3. Natural History, including the Animal, Vegetable, and Mineral Kingdom (£400).
4. Experimental Philosophy and Civil Engineering (£400).
5. Anatomy, Physiology, and Medicine (£300).

The class fees of the students attending lectures were to be used to supplement these salaries, and the Professor of Classics and Mathematics was to be considered the "Principal" of the University.

Following this Report, the Act of Incorporation was presented in the summer of 1849, final assent was given by Governor Sir Charles Fitz-Roy in 1850, and the first Senate was appointed on December 24th of the same year. The medical profession was well represented among the pioneers of University education in the colony, and notable among the first members of the Senate were:—Sir Charles Nicholson, the Vice-Chancellor (Chancellor 1854-1862), Richard Greenup, M.D., the Registrar, Dr. John Smith, the first Professor of Chemistry and Experimental Philosophy, and W. C. Wentworth, who was the son of a surgeon.

To return to the Medical School, we find that the Act of Incorporation, recognizing the difficulty of establishing a Faculty of Medicine at that time, made provision for the registration of men who had received their training in other parts of the world, and, to this end, a Board of eight examiners was appointed to investigate the qualifications of the candidates, all of whom were required to produce evidence of having completed four years' training at a recognized medical school. This arrangement was accepted for some time, but a local school was still the ideal of the governing body, and, in 1859, a Committee was delegated to discuss the matter with the Board of the Sydney Infirmary (now the Sydney Hospital). This Committee recommended the establishment of the faculty in 1860, and Edmund T. Blacket, the University Architect, was instructed to prepare plans for an anatomical school. This move met with decided opposition from the professorial staff, on the grounds that it would seriously delay the completion of the Faculty of Arts, and, in addition, it was argued that the time was not yet ripe for the building of the school. These arguments, together with a monetary deficiency, led to further postponement, and nothing more was done until a new scheme was evolved in 1866. In this new scheme, provision was made for instruction in the first two years of the



THE FIRST MEDICAL SCHOOL.

From photo kindly lent by Dr. C. Bickerton Blackburn.

medical curriculum, and this was to be followed by a period of clinical work at the Sydney Infirmary. A Professor of Anatomy was to be appointed, at £500 per annum, and £1000 was to be expended on an anatomical museum. Here again, however, finance proved the stumbling block, and nothing was done.

The Building of The Royal Prince Alfred Hospital.

In 1868, H.R.H. Prince Alfred, the Duke of Edinburgh, was saved from the hand of an assassin at Clontarf, and this provided the occasion for the building of the Prince Alfred Hospital. The Act of Incorporation was passed in 1873, and the Hospital Board commenced to function almost immediately, under the Chairmanship of the Hon. E. Deas Thompson, C.B., who was the Chancellor of the University at that time. The members of the Board displayed considerable enthusiasm, especially Sir Alfred Roberts, and the Hospital was opened in 1882, with 236 beds.

The Act of Incorporation provided for the resumption of twelve of the 145 acres comprising the University grant, and, by mutual arrangement, it was decided that two or three acres of this land should be reserved for the purposes of building a medical school, but, in 1879, the University recognized that the land could be better used for hospital purposes, and set aside another site for the school.

In passing, it is interesting to note that the University land (previously occupied by farms, notably those of Grose and Farquhar) was granted because of its "remoteness from the populous parts of the town," and we are told that, in 1859, the Commemoration Week "was largely attended, notwithstanding the inconvenience of a long journey from Sydney."

The Establishment of The Faculty.

Following the building of the Royal Prince Alfred Hospital, the Parliament provided the necessary endowment, and the Senate definitely established the Faculty of Medicine. The only chair was that of Anatomy and Physiology, a staff of lecturers being appointed to provide instruction in the other subjects.

The first Professor and Dean was Dr. Thomas P. Anderson Stuart (later Sir Thomas), who came here in 1882, then but a recent graduate from Edinburgh. Setting to work immediately, he proved himself a man of great ability, energy, and enthusiasm, and possessed of a large vision and high degree of moral courage. "Si monumentum requiris, circumspice," the epitaph in St. Paul's Cathedral, has been applied to Sir Thomas, and rightly too, for, in addition to his great work, he was intimately associated with the Faculty of Dentistry, the Dental Hospital, and the

THE LATE SIR THOMAS ANDERSON STUART.
First Dean of the Faculty of Medicine and Founder of the Medical School.

Pharmacy Department. Further, his name has been coupled with that of Sir Alfred Roberts as the most outstanding in the history of the Royal Prince Alfred Hospital. His enthusiasm is illustrated by the following incident. In March, 1883, the advertised date for the commencement of lectures, the only accommodation was a partially built four-roomed cottage near the Great Hall. Impatient to make a start, the new Professor fulfilled the terms of the advertisement, and began work in the cottage, although it still lacked windows, doors, and a roof!

The Development of The Medical School.

The number of students on this first day was four, and the staff included Dr. A. MacCormick (later Sir Alexander), as Chief Demonstrator, assisted by Lecturers in Medicine, Surgery, Midwifery, Pathology, Materia Medica, Therapeutics, and Medical Jurisprudence.

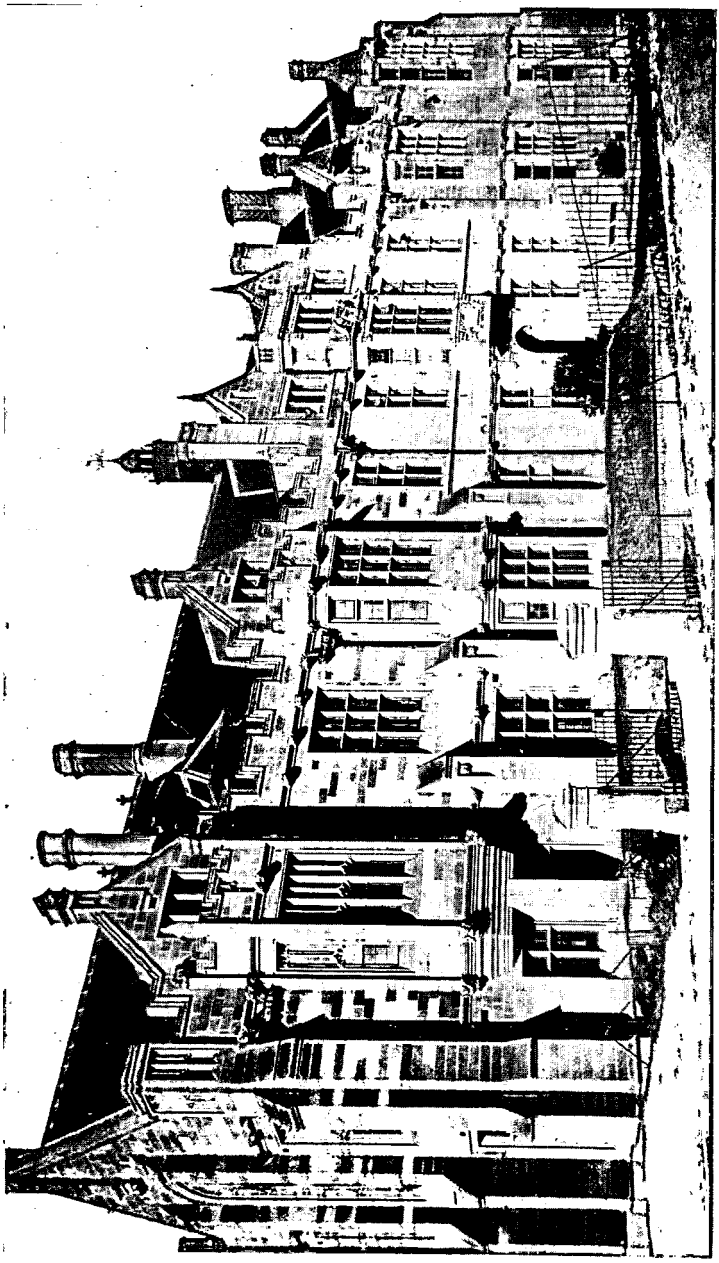
Labouring under great difficulties, especially in the matter of accommodation, Professor Anderson Stuart repeatedly advocated a permanent school, and, in 1887, the building of the first part was commenced. Completed in 1891, it consisted of the southern section, and it extended northwards to include the dissecting rooms and the older part of the Pathology Department. This section, costing £80,000, was regarded at the time as far too big for all requirements, and was popularly known as "Stuart's folly," but the far-seeing one answered his mockers by announcing that the time would soon be ripe for extensions. How true were his words!

The western wing was extended in 1909, and the eastern wing (now occupied by the greater part of the Physiology Department) was extended in 1917, the total cost of these additions being £40,000. This still left an uncompleted portion—"The Gap"—on the northern side, but this was finished in 1922, providing new accommodation for Histology, Physiology, and Obstetrics.

The first section was built to the plans of Mr. E. T. Blacket, who also designed the Main Building, St. Andrew's Cathedral, and St. Paul's College. It is not quite so ornate as the Main Building, but is of the same style of architecture (Tudor perpendicular Gothic), and Pyrmont sandstone was used in its construction. The additions, featuring a broader style, are in keeping with the beauty of the original portion, and now the completed building stands as a worthy contribution to the University architecture.

Teacher and Pupil.

Professor Sir Thomas Anderson Stuart occupied the joint Chair of Anatomy and Physiology until 1890, when Professor J. T. Wilson was appointed to control the des-



THE OLD MEDICAL SCHOOL—FISHER LIBRARY ASPECT.

tinies of the Anatomy Department and the students therein. This advance was made possible by the great Challis bequest, and Professor Wilson filled the position until 1920, when he was appointed to a similar position at Cambridge. Sir Thomas Anderson Stuart was Dean of the Faculty until 1916, when he was succeeded by Professor Wilson, but right up to his death, in 1920, he continued to show his great interest in the school of which he might justly claim to be called the father. In 1902, the Chair of Pathology was founded, and Professor D. A. Welsh still occupies this position—may he long continue to direct and teach in this department, which has always been renowned for the consideration shown to students.

The next appointment to the Professorial Staff was made in 1918, when H. G. Chapman commenced lectures in Pharmacology. In 1920, he succeeded Sir Thomas Anderson Stuart, and Pharmacology and Physiology were then combined. The Cancer Research movement claimed Professor Chapman in 1928, Associate Professor H. Priestley (appointed 1921) acting as Professor until the appointment of H. W. Davies in 1930.

Professor Wilson's successor was J. I. Hunter, a man whose genius was recognized the world over, and who brought more honour on our Medical School during his all too short career than any other graduate. Death dealt the Sydney University a cruel blow, in December, 1924. In 1926, Associate Professor A. N. St. G. H. Burkitt (appointed 1925) was promoted to the Chair of Anatomy, and C. W. Stump came from a professorship at Siam to become Associate Professor of Anatomy, until, in 1928, he was appointed to the newly created Bosch Chair of Embryology and Histology.

The Principles and Practice of Medicine and Surgery were taught by Professors A. E. Mills and F. P. Sandes respectively, who were part-time professors from 1920 until 1928 (Sandes) and 1930 (Mills). In 1929, the magnificent Bosch endowment enabled the University to establish whole-time Chairs of Medicine and Surgery, to which C. G. Lambie and H. R. Dew were appointed in 1930.

The Chair of Psychiatry (part-time) was founded in 1922, when Sir John Macpherson was appointed. In 1927, he was succeeded by Professor W. S. Dawson, who still leads the students carefully through the maze of Psychiatry.

Professor J. C. Windeyer was elevated to the newly created Chair of Obstetrics in 1925, and H. D. Wright was appointed to the new Bosch Chair of Bacteriology in 1930.

In 1930, the School of Public Health and Tropical Medicine was founded, and Dr. Harvey Sutton, formerly the lecturer in these subjects, was appointed to the new professorship.

The Medical School has thus been singularly fortunate in that all its professors have established themselves as sound teachers and there have been no failures.

As previously mentioned, the number of students in 1883 was four; by 1900 the number had increased to 193 (including 14 women), and, with the introduction of the exhibition scheme in 1914, the total jumped to 512. In 1920, following the Armistice, the number was 986, after which it steadily fell to 403 in 1926, and, in 1931, the total was 477, of whom there were 43 women. Women were first admitted to the course in 1884.

The Present Building.

The building comprises six museums, two dissecting rooms, five lecture theatres, fifteen practical class rooms, together with many staff, preparation, and store rooms. Through the munificence of some of its benefactors, the School now boasts of four fine windows. The eastern window, featuring James Syme, Richard Bright, Sir B. Brodie, Edward Jenner, Astley Cooper, and Sir James Simpson, was donated by P. Sydney Jones, Esq., M.D., F.R.C.S., and was worth £220. The donor, later Sir Philip, was appointed to the Senate in 1887, was Vice-Chancellor from 1904 to 1906, and acted as Honorary Lecturer in Medical Ethics for some time.

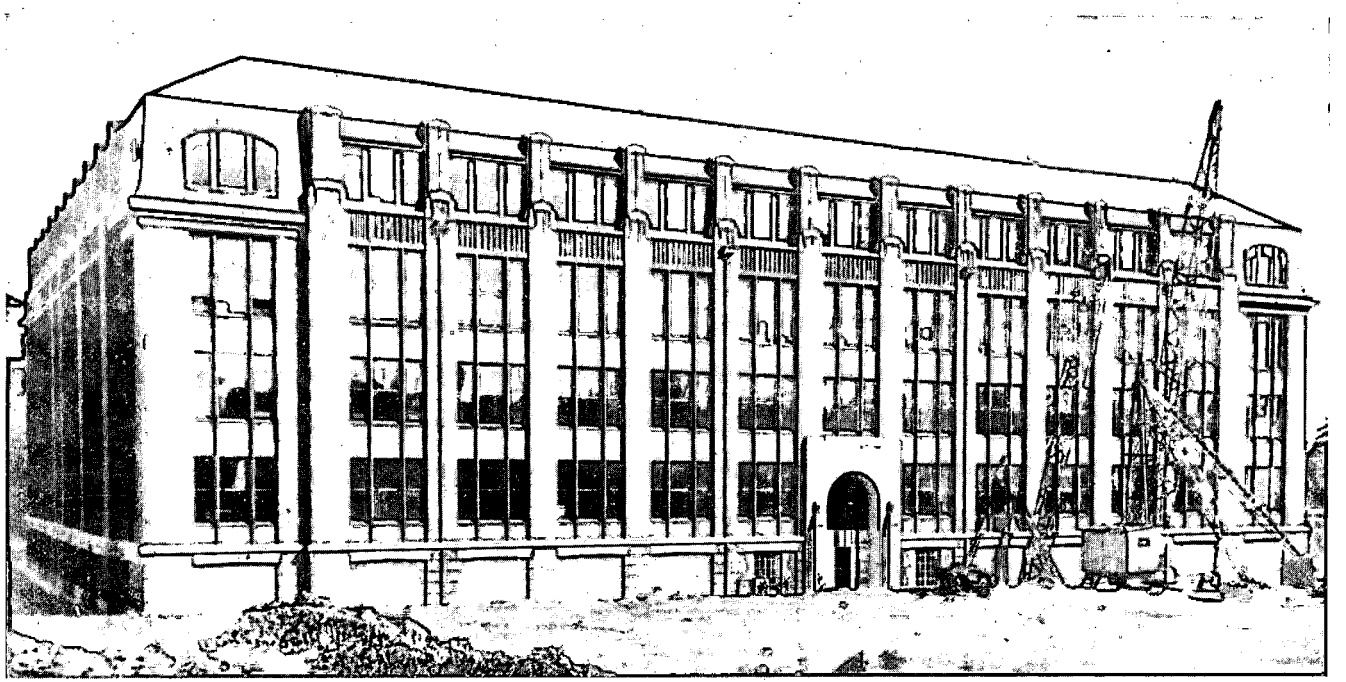
The window over the southern door contains the Coats-of-Arms of 22 distinguished physicians and surgeons. It was given by George Bennett, Esq., M.D., at a cost of £140.

Sir Arthur Renwick, B.A., M.D., whose name was associated with many branches of University life (Vice-Chancellor in 1889-92, 1900), provided the large window at the western end of the first floor. This window, worth £202, features William Cullen, Boerhaave, Vesalius, Hunter, de Haller, Harvey, Laennec, Morgagni, and Sydenham. The window below this represents Galen, Hippocrates, and Areteus, and was given by John Harris, Esq., in memory of Dr. Harris. It cost £120. All these gifts were made in 1888.

In addition to these windows, there are many fine busts along the corridors, that of Sir Thomas Anderson Stuart occupying a well merited position in the main vestibule. Near the southern door is a fine portrait of the Founder, the work having been executed by Miss Merton, and on the opposite wall is a portrait of Sir Alexander MacCormick, the first lecturer in the Faculty and doyen of our surgeons.

The Curriculum.

From the outset, the curriculum covered five years, the first of which was spent in the Faculty of Arts. In 1890, the Medical course proper was lengthened to five years, the



THE ROCKEFELLER FOUNDATION BUILDING, MEDICAL SCHOOL, UNIVERSITY OF SYDNEY, APPROACHES COMPLETION.

year in Arts being made alternative to a higher matriculation standard. This was the position for many years until 1926, when the course was extended over six years, to conform with the Empire Universities. The introduction of the larger course more or less coincided with the appointment of the Bosch Professors, at which time the present curriculum was evolved.

Recent Progress.

Through the years of depression, the Medical School has been carefully guided and its standard of excellence well maintained, and now, in 1933, we are privileged to witness what will certainly be the introduction of a new era in medical education in Sydney. With the close co-operation of clinical units working in the new Rockefeller Building, the Sydney School of Medicine must inevitably proceed from success to success, and the future is indeed bright.

In 1929, George Bosch, Esq., made a magnificent endowment of approximately £250,000, enabling the Senate to establish the Chairs of Medicine, Surgery, and Bacteriology. Through the generosity of this gentleman, the greatest benefactor of the Faculty, the Chair of Histology and Embryology was founded in 1928.

Very soon after this benefaction, the Rockefeller Foundation made a grant of £100,000 to the University, and now we have the fine Rockefeller Building in close proximity to the Royal Prince Alfred Hospital.

The true value of these grand gifts cannot be estimated at present, as the new curriculum has only been introduced recently and the new building is just complete, but the possibilities of the future are unlimited, and within a few years there should be no greater school in any part of the world.

Thus, to-day we celebrate the jubilee of part of our Alma Mater, and, no less cordially, we rejoice in the birth of a new adjunct to the School. The fervent wish of all would be that these two great units will blend in perfect harmony and that the combination will flourish in the future as in the past, and ensure the consolidation of the glorious name of the Faculty of Medicine of Sydney.

Two very modern young babies were holding a conversation.

First Baby: "What changes would you make if you could be born all over again?"

Second Baby: "Well, for one thing, I'd insist on taking my milk out of a bottle. I'm sick of having cigarette ashes dropped in my eyes."

Post-Graduate Travel and Study

By W. E. FISHER, M.B., Ch.M., M.R.C.P.

The all-important matter is to get breadth of view as early as possible, and this is difficult without travel.—Osler.

A former generation of students in the Sydney University Medical School sat at the feet of a lecturer who never wearied of stressing the point that he also was a student, though for the nonce an instructor, and that the best minds of the profession remained students all their lives. In this sense we can all be post-graduate students, and it is one not to be held lightly, having produced a James Mackenzie. Further, in our Australian capital cities, the post-graduate committees are providing courses which are growing, both in aim and achievement. Nevertheless, the usual connotation of post-graduate study is travel overseas and visits to English, Continental or American clinics and laboratories.

Why?

Why does one undertake such work? Partly because of the realisation that, although he has graduated, had his finger prints taken and been registered as a legally qualified medical practitioner, one has still much to learn.

Post-graduate study does not necessitate working for higher degrees, nor do diplomas necessarily imply superior ability. But they do give evidence of work done, and in most cases are worthy of more favourable consideration than was accorded by a former teacher of mine who, when I went to say good-bye, asked what I intended doing. I answered, among other things, the M.R.C.P. of London. His reply was that to walk the hospitals was useful, but that I already had as good a qualification as any obtainable abroad and that such examinations were largely studying the idiosyncrasies of examiners. I regret that my retort, "Aren't all examiners the same, sir?" (to a man whose eccentricities were only equalled by his undoubted brilliance as a teacher) resulted in the meeting ending somewhat coldly. That was five years ago; but only five weeks ago at a dinner, standing opposite a Fellow of the Royal College of Physicians and three members, a speaker remarked that any ——— fool who could spare the time could take his membership. The four were not fools, or at least three were not, and they had thought the necessary time well spent.

The intending post-graduate student would do well to remember that in due course it will probably come to pass in Sydney, as it has already in Melbourne, that election to the staff of a teaching hospital will make a higher qualification a sine qua non; and that in London, in whose steps

we are treading, even the registrars' positions require a membership or fellowship.

A young man planning his career wishes to be either a specialist or a general practitioner. Specialist practice should be accompanied by not only a higher qualification but a public hospital appointment, both of which must be sought soon after resident days or one is out of the running. Specialisation is a more intense job in this year of grace, and the former road by general practice to Macquarie Street is rapidly falling into disuse. When we were very young it was the only way; to-day (count the men in Macquarie Street under 35 and see how many have been G.P.'s) its day is done. This is an instance where opinions, based on experience of the past forty years, must be balanced against an intelligent attempt to forecast the next forty, which is where the young graduate's future lies. With changing organisation of the profession and the development of the big country centres, the future field for specialisation is an ever-widening one. With increasing complexity of medical knowledge and technique, and greater facility of transport and communication, it seems not unlikely that the practice of the future will develop along the lines of clearing centres and groups of specialists. As indeed it exists already in the organisation of our great hospitals, and in the relation of the G.P. and the group of specialists he favours.

As a solicitor is still by Act of Parliament a gentleman, so the medical profession is still a "learned" one, and there is nothing which so broadens the mental outlook as travel. Tennyson's Ulysses said very truly—

"I am a part of all that I have met."

There is no need to make comparison between the teaching in Aberdeen and Adelaide or in Melbourne and Massachusetts; if we admit a difference there is sufficient justification for our going forth to see it. Even young graduates must have had the surprising experience of realising that all the time they have been students at R.P.A.H. there have been notable physicians and surgeons at Sydney Hospital, and vice versa; and that there are different viewpoints equally worthy of respect. Teaching for a pass degree must inevitably be dogmatic; post-graduate learning should be more nearly philosophical. Recently at a discussion in a University College a former Rhodes scholar undertook the labour of love of attempting to explain what Oxford meant to him. One aspect of his experience was that books, instead of being awe inspiring pronouncements ex cathedra, became comfortable opportunities of meeting men and hearing their views. So with post-graduate study you will meet the men who wrote the books you worked from, the articles you read; see them baffled at the bedside, and recognise them in moments of relaxation as very human beings.

Consultant life on the other side of the world differs from similar conditions current in Sydney; men charge higher fees, do less private practice, and have more time to devote to keeping themselves abreast of their particular subjects. Think, for example, of one man who reads three languages himself, has a wife (also a medical graduate) who reads three more and extracts all the current journals for him! The atmosphere is very different. All around men are doing research work with great laboratories, huge libraries and an immense volume of clinical material at their disposal, "Knowledge in a ferment, expanding on all sides . . .," as Samuel Gee said. Bedside and formal lectures bear reference to it, long before it appears in print; for example, a new book, which arrived here a year after my return from London, I had heard in lecture form eighteen months before. Instead of the bare article or resume which appears in a journal, one has in his daily contacts the complete frame of reference of the man responsible, the school of thought from which he springs, and the reactions of his contemporaries.

It is this living, quickening atmosphere, so difficult to describe, which is the chief charm and greatest advantage of study overseas. Just as it is said that no man can live his three years at Oxford without being marked for life, so no one can work in a great medical centre, permeated by a love of learning for its own sake, where research flourishes and teaching is a tradition, without being the better for it. It is a life combining the best features of a noble past and a distinguished present, and is nowhere better exemplified than in the Royal Colleges. The Harveian Oration, the Lumleian and Goulstonian lectures had their origins long ago, but their subject matter to-day is in the forefront of modern medicine.

When?

In a mind of truly scientific humility such an attitude is permanent. It does not follow that to attain the heights life should be wholly peripatetic, except perhaps in the case of teachers. For a practitioner must apply his knowledge in a practice, the development of which implies being regularly available in a given spot. If, then, postgraduate travel is to occur at intervals, when should these be? It is desirable after six years in statu pupillari that the newly fledged graduate should have some general experience in direct contact with patients. In this respect a sound opinion was expressed some years ago in an education number of "The Medical Journal of Australia," that six months of resident life at this stage was worth six years of general practice. There are not many positions available to totally inexperienced graduates from Australia in first-class hospitals abroad, because all these have a steady supply from their own medical schools. But for the graduate

whose course has ended with honours the big teaching hospitals in Sydney offer experience which is perhaps superior to corresponding English schools, because the work is more general. A second year is a priceless advantage, and thereafter he should have no difficulty in obtaining appointments at the Women's and Children's Hospitals. With these three years behind him, the graduate is probably for the first time in a position to form a useful opinion as to what lines his future career will take. Now is the time for the first trip abroad, with a modicum of clinical experience to build on and to help him appreciate what other centres have to give, a definite objective, and not too far away from days of study to find a return to books an impossible task.

Except for the man who starts life wealthy, once a practice is undertaken it is as exacting as an infant and with the passage of a few years, bringing further responsibilities, the chance of travelling becomes remote. In the old world one can be in any of the other centres in a week, but from Sydney England means three months' absolutely unproductive time given to travel.

Where?

America and Canada have the traditions of an Osler and a J. B. Murphy, Johns Hopkins Hospital and the Mayo Clinic, and have given us our modern knowledge of coronary thrombosis, insulin and the liver treatment of pernicious anaemia. Europe follows in the traditions of Virchow, Metchnikoff, Charcot, Freud, Widal, Haymans and Pawlow. But while the magnificent laboratory equipment of the United States and the exact technique of the Continent are not to be overlooked, the Sydney graduate will, perhaps naturally, think first of the British Isles: of London, Liverpool, Edinburgh, Dublin, Oxford, Cambridge, the Rotunda and the Royal Colleges. Diplomas are available, not only in medicine and surgery, but in gynaecology and obstetrics, radiology, ophthalmology, laryngology and otology. Apart from the general hospitals, whether one wishes to study eyes, skin, heart, genito-urinary diseases, diseases of the rectum, chests, cancer, neurology, tropical diseases, there are special hospitals dealing with these alone. And it is a salutary experience to realise that south of the Tweed they sniff at ideas from north of it; that a Guy's man puts his nose in the air at a mention of Bart's; while one's own unprejudiced judgment sees good points on each side.

How?

If one agrees now that travel and study for either the prospective general practitioner or specialist are desirable, in days of depression the question arises; How? Well, a medical graduate with a little looking ahead can always travel free as a ship's surgeon; if the fates are kind, on a big liner, where his bedroom steward brings tea and valets him,

his bathroom steward draws his bath, his dining room steward watches specially behind his chair, the bar steward provides drinks at a 25 per cent. reduction, bell boys come at his call, and there are tropical nights and girls who fall for a uniform. Even if he goes in mufti on a cargo boat, where the passenger list consists of five elderly spinsters and the tropical nights are wasted, the end of the journey is the same.

Once in London ordinary resident work is a waste of time; the experience gained in Sydney is entirely adequate and an R.M.O.'s job is too exacting. If one is fortunate enough to have sufficient to live on, diggings can be found for £3/3/- a week or less. If some money must be earned, for a graduate with experience there are infirmary jobs where a fair amount of time off can be arranged. As to the details of work one can safely leave himself in the hands of such organisations as the Fellowship of Medicine and the coaching colleges; while the Overseas League, Royal Empire Society, English Speaking Union and Australian and New Zealand Medical Association will provide social activities in abundance. One need never have an idle moment. In the evenings there are theatres to turn the stage-lover drunk with delight, whether it be Shakespeare, opera, Gilbert and Sullivan, drama, comedy or variety; dances and all the round of social life, once one has broken through the Englishman's initial reserve, which incidentally is not to be done in a moment. Over and above all this is sight-seeing, whether it be buildings such as the Tower and the Abbey; events such as the Aldershot Tattoo and the Trooping of the Colours; places, the City or a village in Devon; scenery, the Trossachs or the Lakes district; picture galleries or real music—there is something for all tastes.

You will realise when you come back that Charing Cross is clearer in your mind's eye than King Street and the Bank than Circular Quay. Recollections will crowd in—your first glass of home-brewed Kentish cider; cricket on the village green (as it really should be played); your first crocus, blueball, cuckoo or even nightingale; in short, a divine discontent, which a chance word will ever after bring back. You may never go again; but you will never smoke an Egyptian cigarette without thinking of your glimpse of the teeming East; see a book published by H. K. Lewis without thinking of Bloomsbury and Gower Place, and so on . . .

Again, the Continent, to us who live ten days' journey from Perth, is but a stone's throw away. Paris!, the Folies Bergeres, the Moulin Rouge, Versailles, the Invalides, the Opera, the Bois; the totally different French medical system where the professors are confined to the hospitals and the private practitioners to practice only; where pure technique reaches a point undreamed of by the English speaking race; the Italy of Mussolini, but still the Italy of romance and

the dancing faun; Spain, where the very beggars have princely manners and self respect; Vienna and its charming baronesses; Sweden, where the chambermaid will not only draw your bath but bathe you, unless you are careful. And the United States, New York, where the Statue of Liberty still towers, despite the skyscrapers; the Little Church round the Corner, and the glorious cathedral of St. John the Divine; Rochester and the Mayo Clinic, where electrocardiographic records go back for twenty years. . . . Make up your mind to go, ask someone who has just returned for advice, and the way will surely open up; only do not stay too long; those who are away four years rarely come back.

And After.

Powerful as is the charm of Paris, unforgettable as is Edinburgh, real as is the call of the East, most of my work fell in London, and this is what another lover of London has written:—

> And to go away from you, London, is often to come nearer to you in loneliness, in strange places . . . It is then that you seem to see the great black dome riding high on Ludgate Hill; and London appears before you more than a home: a spiritual anchorage perhaps, in which you think you would stand a chance of happiness.

If you go abroad, unless you are like the man from Victoria, who said of St. Peters in Rome, "Yes, it's not bad, but you should see our tabernacle in Ballarat," some place may twine itself round your heartstrings, and the pain of parting which is almost a pleasure at going home will be followed by the pleasure of memories that is almost a pain. But its worth it—absolutely!

"WHILE WE WERE PASSING THROUGH MEDICINE."

Or a Medical Student in his time plays with many parts.
As it was in the beginning, is now. etc.

No. 1.—The medical student enters the Faculty as a bright young man.

John Irvine Hunter

By WALTER J. HULL, M.B., B.S., B.Sc., and
PROFESSOR A. N. ST. G. H. BURKITT, M.B., B.Sc.

THE Jubilee number of the "Sydney University Medical Journal" would be incomplete without a short history and study of the character of the late Professor John Irvine Hunter, his University life, and his attainments.

"Johnny Hunter" (as he was affectionately known to all) came to the University in 1915 at the age of 17 years, having matriculated with seven A's and one B, and, gaining a University Exhibition and Bursary, he commenced the study of Medicine. After his first year, when he was second to a brilliant man—his friend, the late John Paling—he outstripped by leagues all his rivals. He topped Second Year Medicine, won the John Harris Scholarship in his third year, and, carrying off all the prizes of the fourth and fifth years, finally graduated, in 1920, with the highest pass ever attained in the Sydney University Medical School.

Hunter was, probably, the greatest genius of our race, and, although he was not known and acknowledged as such, it is the opinion of some who knew him intimately that, had he been spared but a few years longer, he would have been thus proclaimed. He showed his genius by his thorough understanding of the various subjects of his course before his lectures in those subjects were completed, and it is no exaggeration to say that, before the different courses of lectures were completed, he generally had a profounder knowledge of the subject than the lecturers themselves. After his first year probably no examiner was capable of "dating" him; on the contrary, had he so wished, he could with ease have tied most of them into intellectual and technical knots.

He was writing his lucid and concise description of Neurology, the most difficult of all anatomical subjects, before Professor J. T. Wilson had completed his lectures in it, not (as he points out in the foreword) to condense, but to clearly define and systematically arrange, the scientific facts which neurologists have made known to us up till the present time!!! He had a thorough and up-to-date understanding of Neurology, such as enabled him to detect any inaccuracy, slight or great, that the Professor might make during his lectures, although he himself was taking them for the first time. He coached men in Anatomy and Neurology for their third year deferred examinations, when he had only just completed his own second year, and, throughout his whole course, he prepared men for examinations which he himself had not yet reached.

And, withal, he showed his great genius by his trans-

cendent humility. To the discerning eye, it was the air of indescribable humility which surrounded him that marked him as something far and away more than brilliant, and as the great genius that he was. He was a second Shakespeare as to intellect, a second "Man of Sorrows" as to humility. Genius is characterised chiefly by an all-pervading humbleness, and without which there is not genius. Hunter was a striking exemplification of this truth.

Whilst an undergraduate he carried out important work in the standardization and stabilization of Dakin's Solution for the treatment of infected wounds. Previous to this, the chemists here had been unable to produce a stable standard solution of the alkaline calcium hypochlorite solution, and, consequently, varying and unsatisfactory results were being obtained. Hunter, in collaboration with Mr. F. S. Cotton, of the Physiology Department, produced a solution which remained stable, and effected uniform clinical results with it at the Royal Prince Alfred Hospital.

Before graduation he had also written an important treatise entitled, "Abdominal Pain and its Associated Reflex Phenomena." This work, which did not receive the notice here that it deserved, gives an early earnest of his thorough grip of neurology, and also of his hypothetical reasoning powers, for he postulated an overflow of nervous stimuli in disease which bridged gaps in the spinal cord by bringing into action definite association cells and tracts, which ordinarily are not called into action by the normal stimuli in health, and which gave a reasonable explanation of certain reflex phenomena, and interpreted clinically and neurologically the possible connections between the somatic and splanchnic nervous systems. This treatise was a definite scientific contribution of the highest merit to the subject. In addition to this, he found time while an undergraduate to carry out the early experiments with Dr. N. D. Royle on goats in their investigation of the cause of spastic paralysis. During his fourth and fifth years, Hunter was a Demonstrator in Anatomy.

A few months after graduation he was appointed Associate Professor of Anatomy, being then only 22 years of age, and a little later he was granted a year's leave of absence for the purpose of studying abroad. It was while he was in Europe that he established his reputation as one of the foremost anatomists, neurologists and embryologists of his day. He also proved that he was an original investigator of the highest order, for he settled the long controversy which had raged around the reconstruction of the Piltdown Skull among the anthropologists of Europe.

By his original research on a specimen of ovarian pregnancy, he conclusively established the fact of a primary ovarian implantation, with surrounding decidual reaction, and upheld his conclusions in a most masterly speech de-

livered before the British Anatomical Society. This exposition of Hunter's left his audience of English scientists spellbound, and drew them all, young and old, to his feet.

At this time he carried out research on the development of the fore-brain of the kiwi (Apteryx Australis) at the laboratory of Professor Ariens Kappers, at Amsterdam. His thesis on this work was of extraordinary merit, and gained for him the degree of Doctor of Medicine with first-class honours, the University Medal, and the Ethel Talbot Memorial Prize, at his own University. During this period he also

did some original work on the oculomotor nuclei in the brains of Tarsius and Nycticebus (two representatives of primitive monkeys and believed by evolutionists to be man's remote ancestors) which added greatly to a clearer understanding of the evolutionary process in the brain of man and of his consequent ascendency.

He returned by way of America, where he was tendered a dinner by the Medical Board of the Rockefeller Foundation, and where he had to submit to a crossfire of ques-

tions by its members as to the aims and work of our University. It is believed that, at that dinner, the seed was planted which bore the fruit later of the Rockefeller Grant for the new Medical School at Sydney now in course of construction.

He arrived in Sydney early in 1923 and was appointed Challis Professor of Anatomy, being then only 25 years of age, and at once threw himself into the work of his department by reorganizing it and encouraging research work in its laboratories, and by doing all he could to bring together, and co-ordinate generally, the academic work within the University with the clinical work outside. To further this end, he provided facilities for meetings of the N.S.W. branch of the British Medical Association within his Department. He at the same time renewed his work with Royle upon the Sympathetic Nervous System and the part it played in spastic paraplegia. He and Royle put forward the hypothesis that the sympathetic innervation of skeletal muscle controls that component of tone known as postural or "plastic," by which a limb is maintained in a given posture, and they proved experimentally on goats that division of the grey rami communicantes of the sympathetic ganglia would abolish postural tonus. Time has proved that, while their clinical observations still hold, their explanations were not correct, because they were based chiefly on Boeke's work, which was probably not accurate. They also proved experimentally on decerebrate goats that, by removing the influence of the sympathetic nerves in a case of spastic paralysis, the spasticity would be greatly diminished. The crowning point of their investigations was reached when they successfully operated upon a human subject at Lewisham Hospital, who was suffering from spastic hemiplegia of seven years' duration, caused by a gunshot wound of the left parietal region. This achievement caused a sensation throughout the medical world, and, as a result, Hunter and Royle were invited to deliver the John B. Murphy Oration in Surgery at New York on October 20, 1924. Hunter delivered his lecture to a crowded audience in the ballroom of the Waldorf Astoria Hotel, and completely dominated that great assembly by his enthusiasm, clarity of exposition, youth, and vitality. This was one of the great moments of his short and wonderful life.

Hunter went from America to England, where he arrived about November 22, 1924, and commenced to give lectures on his work to the physiologists and clinicians of London. But he was not well; he thought he had not recovered from his sea-sickness on the boat. He delivered a lecture at Cambridge on about December 6, and returned to London on the following day, when it was found that he was up and about with a temperature which next day had risen to almost 105 degrees. He was sent to hospital, where

he died on December 10, 1924—from typhoid fever, according to the physician who attended him; some of us, however, strongly suspect that it was a fatal attack of encephalitis lethargica contracted in America that caused his death. Such is a brief outline of the academic life of ten years, from his first lecture till death, of this wonderful youth.

During his undergraduate days he edited the first "Wesley College Journal," was a member of the Wesley College house committee, was on the board of directors of the Union, was secretary of the Union debates sub-committee, and a member of the Council and librarian of the Sydney University Medical Society.

Personally, he was lovable, unobtrusive, and, above all, humble to the superlative degree, but full to overflowing with fire and mental energy. He always electrified his audiences at the debates in the Union, so contagious was his enthusiasm and so powerfully dominant his personality when once he warmed up to his subject. His love of the truth shone through all his actions, and he would at all times detect and condemn falsehood however disguised, and what appeared to be a Divine fire burning in his breast would consume with a withering flame all branches which falsely claimed to be of the Tree of Knowledge.

No. 2.—Dabbles in Botany.

"WHILE WE WERE PASSING THROUGH MEDICINE."

The New Building of the School of Medicine

By C. WITHERINGTON STUMP, M.D., D.Sc., F.R.S.E.

DURING the past few years, the Faculty of Medicine has been carrying on an experiment, with the object of extending its activities, in the study of disease. The assumption on which the experiment is based is that academic medicine requires the whole time service of a staff trained in scientific method, and enjoying the laboratory facilities and equipment, which are the everyday tools of workers, in other fields of biology.

Up to the present, important conditions of the experiment have been fulfilled. Pathological studies have been extended by the endowment of a chair of Bacteriology, and the establishment of a corresponding department. Full time chairs in Medicine and Surgery have superseded the part time appointments. With the erection of the new building appropriate laboratory space and equipment is now available for all departments concerned with the investigation of disease.

It is interesting to note, that in the main, the work so far completed is that of a layman, George Henry Bosch. For many years Mr. Bosch had interested himself in the applied side of science and had studied the growth of organisations which met the new needs of constructional engineers and technical workers. He recognised that the inventions and adaptations of applied science were commercial expressions of more fundamental inquiries. Contact with Dr. Sinclair Gillies, over many years, had provided a source of balanced knowledge on matters pertaining to clinical investigations and the obstacles that beset the path of workers in our own school. It is difficult to assess the influence of two men, one upon the other, but it may be said that Dr. Sinclair Gillies had given much consideration to the policy eventually adopted by Mr. Bosch.

The history of the Bosch benefactions is one of swift action. In 1924, special work (Hunter and Royle), was endowed. In 1927, the Department of Anatomy received a grant of £27,000. A chair in Histology and Embryology was founded and £900 per annum made available for research. The same year the Department of Physics received £2,000 for the purchase of special apparatus. By this time, Mr. Bosch was critically interested in institutions concerned with the study of disease. A gift of £220,000 established full time chairs in Medicine, Surgery and Bacteriology, and provided the maintenance allowance necessary to develop laboratory departments in these subjects. To make himself familiar with the methods of laboratory workers, he visited medical

MR. GEORGE HENRY BOSCH.

schools in Singapore, Hongkong, Peking and Japan. In addition, he reviewed the work and scope of research foundations in medicine, inquired into the financial administrations of University Departments and general problems of medical education.

The late Richard Pearce, then Director of the Division of Medical Education of the Rockefeller Foundation, evinced interest in the effects of the Bosch benefactions. In 1929 Mr. Bosch went to Europe and took stock of the Departments in the Faculties of Medicine of older Universities. In January, 1930, he crossed to New York to confer with Dr. Pearce and the Board of the Rockefeller Foundation. Following this visit, the University of Sydney found itself in the position to accept from the Foundation the gift of the building. Mr. Bosch spent another year in Europe and America, in and out of Universities.

His tact, judgment and critical intelligence, are his great attainments. His experiment in academic medicine is by way of being an effort, an achievement, one among many, in a distinguished life of self-development. The new building provides appropriate shelter and facilities, and is structurally integral with the hospital. Now, both hospital and University have the responsibility of supplying the obvious further requirements upon which the success of the Bosch experiment is wholly dependent.

The site of the building, in close proximity to Prince Alfred Hospital, provides not only geographical convenience for staff, but, should it be deemed expedient, also gives opportunity for scientific liaison, in both investigation and hospital routine services. A covered way connects the laboratories with the hospital in a central axis, an arrangement which, it is hoped, will influence and facilitate future development of the hospital in regard to routine services and outpatient centralisation. To provide for such expansion it was necessary to have the medical laboratories on a level common to the hospital; this entailed a layout with a semi-basement.

The plan of the building is in the form of the letter E., with its main axis along the centre limb and the entrances placed at the western and eastern fronts. In addition to the basement, there are four floors. Construction is in reinforced concrete, veneered externally with facing brick.

Teaching classrooms and theatres are on the western front, accessible by a stairway and corridors on each floor. Students' access to the library, and to the museum, situated in the centre of the building, and flanked by light courts, is from the western corridors. There are two theatres, two large laboratory classrooms, and one demonstration room, all approximately 45 ft. square.

Seating accommodation in the theatres, consists of upholstered unit seats of 2 ft. centres, each fitted with a writing tablet; optimum comfort, in attention and inattention, is provided for 170 students. Each classroom will accommodate 100 students, with appropriate laboratory benching and fittings. Two smaller classrooms are provided for advanced group laboratory exercises. The students' corridors in the western front are fitted with steel lockers 6 ft. high. The lavatory accommodation is arranged in compact sanitary blocks, off the western corridors, on each floor. The segregation of the units follows conventional practice.

The northern light court is provided with an archway, giving entrance to vehicles. All services associated with stores, fuel, animal food, cadavers, etc., are in this court. In addition, it houses the boiler and the incinerator, which serves each floor, at the western corridor, by means of hoppers.

In the centre pile, the basement contains an operative surgery classroom, cadaver room, store, and switch room.

Above this is the library, octagonal in plan, 52 ft. wide and 20 ft. high. Radially arranged structural columns reduce the span of the floor above and permit the division of the room into a series of semi-enclosed reading bays, flanked with book stacks. Groups of windows on six sides give natural lighting. Book stacks and periodical shelves are steel, specially designed to serve an open library system. Two subsidiary rooms and a store, are at the disposal of a librarian. The student entrance is from the western corridor of the ground floor—the staff entrance from the eastern corridor.

The pathological museum is on the third floor, above the library, and has the same dimensions and plan. An added feature is a circumferential gallery, 6 ft. wide and lit by top pavement lights. On the main floor show cases are arranged radially, and round the room, under the large window units, are set benches for the examination of museum specimens, macroscopic and microscopic. The gallery greatly increases accommodation for show cases. A curator's room, preparation room and a store room, are subsidiary to the museum.

The main animal house is erected above the museum. In three rooms outside runs are provided for stock. Animals under experiment, will be stored in cages, fitted in trays, on angle iron stacks. A second animal house, built above the lavatory block, provides for epidemiological work.

The research laboratories are grouped on the eastern front, and southern and northern wings. The corridors are placed in the north and west sides, hence, all lighting of laboratories is east and south, cutting out direct sunlight, for the greater part of the day. Wide windows give the greatest possible natural light. Fly proofing of the windows is restricted to the 2nd and 3rd floors, which house pathology and bacteriology, respectively. Cross ventilation is established in each room. The single laboratory unit is approximately 15 by 20 ft., fitted with window and side wall benches, a cabinet, a table, power and light plugs, gas, hot and cold water. The larger laboratories are in multiples of the single unit. Special technical units have been provided in the form of chemical laboratories, photographic studio, constant temperature, refrigerator, cleaning, and autoclave rooms, operating units, preparation rooms, etc., and a workshop.

The partitioning of the laboratory sections is not integral with the structure of the building; at any time part or the whole of the laboratory lay-out can be reorganised at relatively small cost. Every fitting is standardised as far as possible. The bench drawers and cupboards are interchangeable throughout the building. The fume cup-

boards of the chemical rooms are ventilated by an induced exhaust system, with ducts carried above the roof level and terminating in a cowl. Dark rooms are fitted with labyrinth entrances. The wood work is of polished maple, except working benches, which are of Queensland pine, treated with an acid resisting mixture. Working bench tops are supported by reinforced concrete cantilever brackets.

DOORWAY OF THE ROCKEFELLER FOUNDATION BUILDING.

The hot water service is of the tank storage and overhead double pipe feed system, arranged for rapid supply on full demand. The water is heated by a sectional boiler; feed to hot water faucets is by gravity. The cold water system is gravity fed from tanks with a capacity of 4,300 gallons, situated in the pent house on the western front. A centrifugal booster pumps the water to these tanks, which are subdivided to give separate supply to draw off points

(sinks and basins), to sanitary flushing services, and to the hot water boiler. The plumbing system, hot and cold water, gas, wastes, and vents have been arranged in vertical stacks, carried in ducts, running from the top to the bottom floor. Guttering and rain down-pipes are in muntz metal. The sinks of the chemical benches discharge into settling tanks with a syphonic waste, which arrangement provides for adequate dilution of corrosive fluids before they enter plumbing wastes.

Flooring, except in special rooms, is in heavy quality linoleum set in mastic. Walls are cement rendered in the laboratories, coloured green.

Corridors are false ceiled with sheets of fibrous plaster. The ducts, thus formed, are used wherever possible for electric light conduits. Laboratory benches are equipped with electric light and power points at 4 ft. intervals. Bench lighting is provided by telescopic light brackets suspended from the window mullions. The bulk of the current required is alternating; a transformer in the switch room generates direct current of heavy amperage for special apparatus. Telephonic communication with the University and central exchange is provided. An automatic clock system is installed in lecture theatres, large classrooms, library and entrance hall, controlled by a master clock in the porter's room. In the eastern vestibule is a staff passenger lift; a large goods lift, serving the western corridor, travels between the animal house and northern light court.

Under the direction of Mr. Evan Smith, F.R.I.B.A., the Government Architect's Department has completed an onerous task. Mr. Smith delegated the planning and designing to Mr. A. J. Brown, A.R.I.B.A.

Those of us who worked with Mr. Brown wholeheartedly share the confidence Mr. Smith placed in him. It is a pleasure to acknowledge indebtedness to Mr. Brown, not only for the energy and mental equipment he brought to bear on the problem of the building, but also for his unlimited forbearance. Incidentally, he placed his notes at my disposal; the use made of them has been scandalously free. Unfortunately they were too extensive to use in their entirety. Kell and Rigby were just and generous contractors. Mr. Hughes and Mr. Baird were the keystone of the process of erection, and the difficult task of the supervising architect, Mr. Smart, was one not to be envied.

Patient: "Doctor, what I need is something to stir me up—something to put me in fighting trim. Did you put anything like that in this prescription?"

Doctor: "No. You will find that in the bill!"

A Post-Graduate Holiday

A Tramp in Andorra

By DOUGLAS MILLER, M.B., F.R.C.S., F.R.A.C.S.

ONE might imagine from learned talk and copious information of post-graduate study abroad, that men thought of and did nothing else during those precious years, whereas, in fact, what most are nearly as concerned about and remember at least as vividly is their post-graduate holiday. There can be no dispute as to the value of post-graduate study in Europe, but there should be no illusions that it is anything more than hard work. Maybe Sir James Barrie is right and there is no better fun, but oftimes those fruits of labour, the expectation of which is not entirely divorced from the fun, seem remote and unattainable. So it is that the post-graduate slogging away at the grim necessities of his fellowship, or membership, looks forward eagerly to those few weeks of reward or respite at the end of it, and plans each minute with no little care.

A few years ago we always felt that our slender resources would carry us further on the Continent than elsewhere. Some chose a push-bike tour, a few, more affluent, could spend £20 or £30 on a car and ship it across the channel, while others would find themselves cajoled or tricked into the only real way to visit a country, on foot. So, as the numbers went up at the College, the boat trains carried off in all directions the rewarded or disappointed, but all relieved holiday seekers.

The greatest trouble of all is to make a choice of destination from among the possibilities which abound. Is it to be the Black Forest, the beer gardens and music of Munich, the thousand charms of Vienna, or Berlin, or the loveliness and sport of Switzerland, that is to attract us? I found myself committed in a moment of exaltation to a tramp in the Pyrenees. The spirit of romance associated with the name and place, far outweighed any geographical knowledge we possessed, but this in turn was not difficult to acquire. There is a Pyrenees literature. This region has its fanatical devotees who rush to it jealously on every occasion and honour it in song, book and ballad. The high priest of such is Hilaire Belloc, who is never tired of rhyming of the bees and the fleas of the High Pyrenees. The habitue of the Pyrenees has but little in common with the visitor to Switzerland. The pleasures of the latter are organised, and stereotyped, but the Pyrenees is a region of romance and adventure, a place where the unexpected always seems to happen. The great thrill and never to be recaptured first fine careless rapture comes as the train

puffs its heavy way up through the foothills of the Bas Pyrenees. Away in the distance terracing the earth to the sky are the vast snow clad peaks which we are to explore. Lourdes is the point of departure, a charming little nook in the foothills, famous for its religious associations. Thousands of all nations and classes gather there each day, and the chorus of hymns and prayers rising in many tongued unison by the side of that rushing slate-blue stream is something so charged with grandeur and emotion that it could never be forgotten.

However, our object lies far from here, and so we strike off away from the crowds of Lourdes and the grand ascent to the High Pyrenees commences. Soon away from all roads we arrive at the region of mountain villages and mule tracks. High up just below the permanent snow region these villages, centuries old, have no road communication with the lower world. No motor has snorted carbonic desecration in their tiny streets, only the mules and their picturesque riders joggle and pick their way along, taking to market the hard-won products of the little farms and bringing back the cherished rewards. There are many such villages scattered about from one end of the Pyrenees to the other. It is amusing to think that no motorist has seen or ever will see them. In every respect they are most primitive, except for the universal installation of electric light, derived from the great hydro-electric scheme of this region.

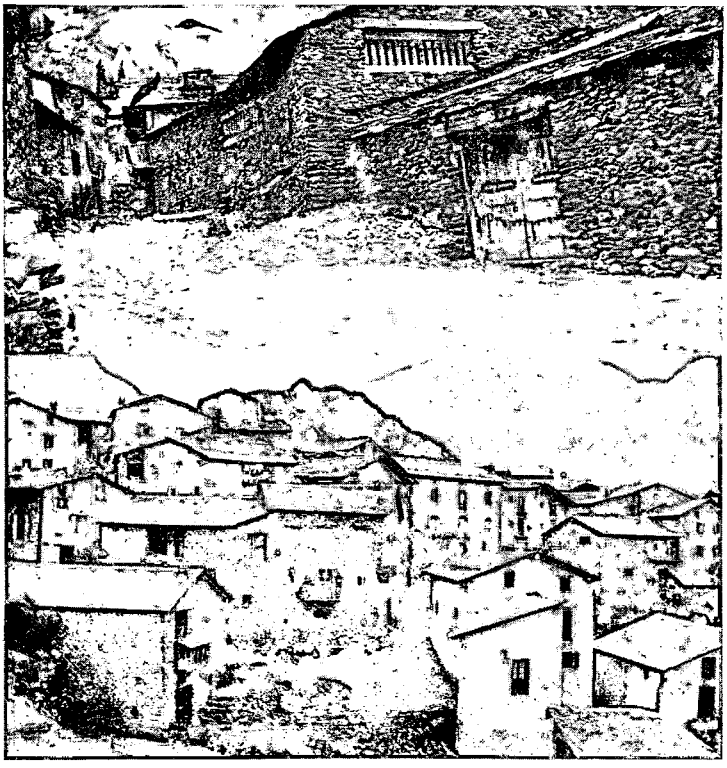
Sanitary conveniences were various and at times amusing, but not often so really commodious as in one small place, where mine host led us into the little town square and, waving his hand aloft, exclaimed, "Ici le cabinet Monsieur, au plein air!" One could only express appreciation of its airy qualities.

Fifteen or twenty miles a day, often including very severe climbs, always found us ready for that meal which we planned to enjoy each evening at some village, or mountain hospice. I do not really know whether the cuisine was always as wonderful as it seemed, or whether exhaustion was a good condiment, but the wine I feel certain must have been of the best. After initial amazement at our appearance "comme boyscuts" and the reflection that after all we were only "fous Anglais," these kindly and genial people were never taken unprepared. The loneliest of hospices among the snows would have us seated at an excellent dinner within an hour. And the cost next day for dinner, wine unlimited, bed and "petit dejeuner," usually about 3/6.

At the end of a couple of such weeks zig-zagging thus pleasantly between France and Spain from one end of the Pyrenees to the other, we arrive at that great forbidding pass which cuts France off from her smallest neighbour, Andorra. From an altitude of 8,000 feet we look down into

this ancient Republic of which I admit that two weeks before I had been more than ignorant.

This little Republic is set securely enough in a gigantic ravine running down steeply from the very apex of the Pyrenees into the valleys of Catalonia. It is about 20 miles in length and fifteen from side to side. Its population is said to be about five thousand. As one crawls and stumbles down the severe barren mountain slopes into Andorra, the peculiar security which this Republic has enjoyed, unmolested for so many centuries, would seem to be readily explicable on the grounds of its rugged impassibility, and



Top—Suburbia in Andorra.
Below—General View of Andorra la Viella.

the obvious infertility of its black granite walls. It seems anomalous that five thousand people could subsist in such a country, but we have heard rumours that to a large extent they live by contraband, and this is lent colour by passing in the distance now and again a little party with heavily laden mules, picking its way up some lonely mountain pass. We have been warned to beware of bands of brigands in these wild parts, so it is with relief that we see these little freight carriers pass us by.

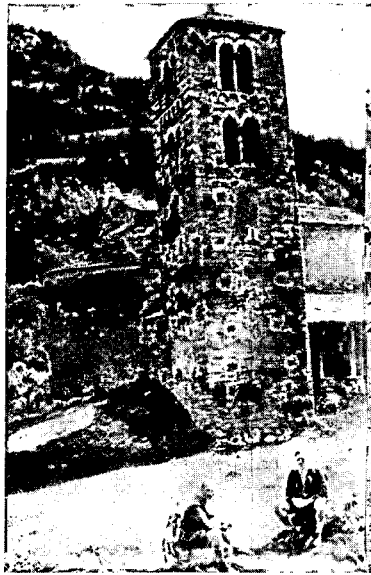
After passing through a few small and most gloomy-looking villages we arrive eventually at the capital, Andorra la Viella. There could not be in the world a more gloomy or sepulchral looking township. All the buildings are low and built entirely of the black stone of the mountains. Many have no windows. There are no gay tiles here, as in Spain, to relieve the picture, and the roofing also is of black slate. For the most part the slates are held in place by the weight of many large black boulders. It is said that the most modern house was finished about 700 years ago, and no one would feel inclined to challenge the statement. These ancient houses line meandering streets so narrow, that the old decrepit balconies, which nod and crane at one another across the streets, almost come into contact.

It is as silent as the tomb which it so much resembles. The afternoon is very hot, and sweet putrescent odours hang like a cloud over Andorra. These odours are unlike anything we have experienced, and we feel certain that they are true mediaeval smells preserved without interruption from the early Middle Ages. They permeate the streets and houses, and to us seem to be almost tangible. We seek to escape them by walking, but these odours are not to be so easily evaded.

A terrific noise in the streets shortly after our arrival wakens the city to an appearance of life. A terrified rooster is being pursued among the labyrinthine highways, and geese, goats, children and ancients come to life as our second course is eventually captured and strangled. However, he had his revenge two hours later, by being entirely inedible.

Laboured conversation with the one gossip of the town, who could speak French, enlightened us as to the history, ancient and modern, of Andorra. We immediately discovered that contra bandism is open and unashamed. These smugglers do not live secretly in caves, but comfortably in their own homes in the security of their Republic. We were able to obtain perfumes and tobaccos most cheaply, it being blandly stated that they were on their way through.

Discussion of politics, always the ultimate test of proficiency in a foreign tongue, was made easy by the simplicity of the situation. The little Republic, the most ancient in Europe, owes its independence to Louis le Debonnaire who, in 805, granted its charter. This independence they have enjoyed unmolested ever since. Their constitution places them under the combined suzerainty of the Prince Bishop of Seo d'Urgel in Spain, and the President of the French Republic, in place of the ancient Princes of Bearn. A president and council presides over the administration of the Republic, but office-bearing is without pay and therefore unpopular. On the other hand, their task is not laborious, as there are no public works, no stamps, no coinage and only sufficient taxation to pay nominal tribute



Ancient Watch Tower,
Time of Charlemagne.

The Homes of the
Aristocracy.

Entrance to Capitol,
Showing the small custodian
of the great key.

to the Prince Bishop and the French Republic. There being no work associated with office, there is but little honour. Most people seemed very vague as to the name of their president!

The Capitol, which combines the functions of all State buildings, is an ancient low stone structure resembling more a mill. Here are to be found under one roof, Council Room, school, gaol, banqueting-hall, kitchen, and a dormitory for distinguished visitors. There was considerable difficulty in gaining admission to this building, as nobody appeared to know where the key was. However, as the result of much shouting down the street on the part of our friend, an urchin emerged from a near-by house, bearing the largest key I have ever seen. It was at least fifteen inches in length and proportionately heavy. After some difficulty, the lock creaked and clanked back and we pushed open the ancient door of the Capitol. It cannot often be that a visitor to a foreign Republic is handed the key of the Capitol by some stray urchin. The interior of this building is full of interest. Ancient mediaeval frescoes adorn some of the walls. We were particularly attracted by the kitchen, a huge stone room with a spit hanging over the centre of the floor, above which is a large hole in the ceiling. Apparently beasts are roasted here on occasions. In the Council Room is a chest remarkable for the fact that it houses a guarantee of independence issued by France and Spain in the year 1659. This is jealously guarded by six separate locks. The various keys are each in the care of six separate councillors, resident in different parts of the country. Not easily is this treasure to be handled. It did strike us that a hard blow with the closed fist would however shatter the door to pieces. The nearby presence of the garotte, the official instrument of death, is however sufficient deterrent against any such sacrilege. This grisly instrument resembles a large iron book press, and being operated by a large screw handle the rapidity of strangulation is thus left to the discretion or mood of the executioner. Fortunately, it has not been used for many years. There are but few laws in Andorra and no official police.

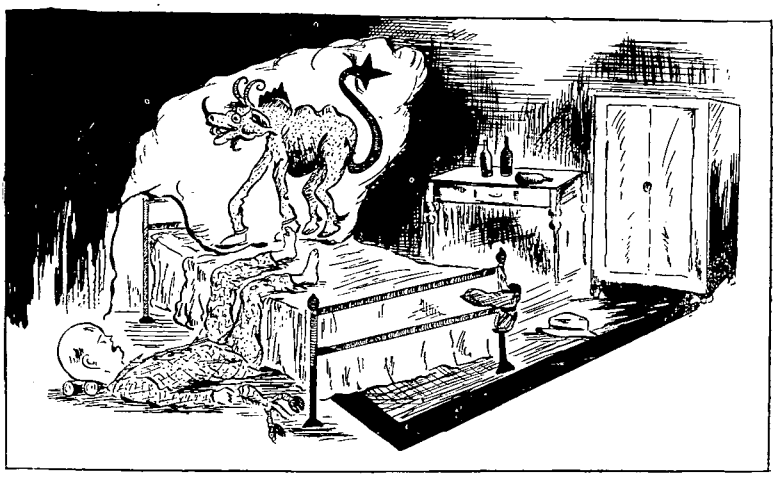
The grazing lands and forests of Andorra belong in common to the people, but the small areas of arable land belong to families and are transferred according to the custom of "cap de casa." The head of a family selects from his sons a successor, not necessarily the eldest, and this "cap de casa" then inherits the patrimony and is the only member of the family entitled to vote. There are about six hundred persons thus entitled to the franchise. I saw that recently there was some internal rebellion in Andorra against this restriction of the franchise. It would appear that the impossible had happened, and the spirit of rest-

lessness had passed even so far into the inner fastnesses of the High Pyrenees.

Having learnt what we could of this gloomy "town" and having failed miserably to rise superior to its awful odours, we said farewell to it early on Sunday morning. At this time it appears to spring into life. The streets are thronged, there is excited chatter, multitudinous bells ring from every corner, donkeys whinny, goats clatter in herds on the cobble pavement, beautiful Spanish-looking women wearing high combs with black veils draped over them, emerge from their houses. Such is our last glimpse of the capital.

Out of the town, the one made road in the Republic bumps its way down the steep granite mountains into Seo d'Urgel. Mostly the surroundings are severe black granite cliffs, with occasional little vineyards perched like window boxes on their face. Great ice cold mountain torrents tumble down on every side. The air is warm and filled with the buzz of summer insects. After a few hours' walk, during which we pass a quaint little chapel with an enormous Moorish tower, dating from the time of Charlemagne, we round a jagged mountainous corner, a fertile valley, yellow with ripening crops and corniced by vineyards mounting the surrounding hills, opens out before us. Away in the distance glowing with the red of the setting sun are two great Moorish forts. The ancient and gloomy Republic of Andorra is behind us and we swing on into the mellow fertility of Catalonia.

"WHILE WE WERE PASSING THROUGH MEDICINE."



No. 3.—Unravels the mysteries of Zoology.

PROFESSOR D. A. WELSH.

March! march! . . . .
Why the deil dinna ye march forward in order?

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Recollections, Reforms and Regrets

By D. A. WELSH, M.A., M.D., F.R.C.P. (Edin.),
Professor of Pathology, University of Sydney.

The Story of My Life.

ONCE upon a time I was a student of medicine—and I am a student of medicine still. That is the story of my life, and anything more that I may say is but a variation of that theme. It is with considerable trepidation that I tell this tale. Still, it may interest past and present students to learn something of the pit from which I was digged, and it will illustrate some of the reforms which I have advocated from time to time but without success.

The Secret of Greatness.

When I began the study of medicine in Edinburgh, it was a four years' course, and there were about four hundred students in my year. These students came from all quarters of the earth—from Canada, Australia, and New Zealand—from India and China—from England, and even from "distant" London, so compelling was the fame of the great teachers of medicine in Edinburgh in those days. And, if now there is not the same rush to Edinburgh, that is not due to any decline there, but to the development of other schools of medicine throughout the British Isles and throughout the British Empire, following the brilliant lead of Edinburgh. For at that time Edinburgh led the English-speaking world in trying to realise the true ideals of medicine through the excellence of her practical teaching, and it is not too much to say, that the success of that practical teaching was due to the fact that it was based on pathology. The tradition of the Edinburgh Medical School was—and is—that every teacher must be a pathologist first, and a physician or surgeon afterwards. That principle has not only produced the great scientific physicians and surgeons of past and present days, but it has led to the enlightened conception of pathology as something more than "morbid anatomy." In my time, and in that sense, every teacher of medicine was a pathologist. One lived in an atmosphere of pathology, not merely redolent of the emanations of the post-mortem room, but enriched by its clinical applications and by the "follow-up" autopsy. "Morbid" conceptions of pathology are still too prevalent here, although we have had—and still have—great teachers of medicine and of surgery in our own medical schocl and teaching hospitals, animated by the true spirit of pathology.

Surgery in the Second and Fourth Years.

Into that vortex of humanity I crept, a mighty little atom, and for a time was wholly lost. We began anatomy in our first year, and surgery in our second year, working in the hospital wards as surgical "dressers" under fourth year surgical "clerks." Beginning hospital work so early did not make us think that we were already accomplished surgeons: the clerks, the residents, and the surgeons all attended to that.

It is difficult to assess the value of that early introduction to hospital work, but it certainly had a value. It was of no great benefit to us when we in turn became surgical clerks in our fourth year, because all our surgery had to be relearned in the light of pathology done in the third year But it left some vivid impressions of men, women, and children in the grip of fell disease, and it gave a directional lead and a clinical interest to our subsequent work. I can still call to mind some of the "cases" which I had to dress in my second year.

The first case which I had to dress was a nice motherly woman from whose right axilla a tumour had been removed. For some time all went well. Then, one day, I noticed that the edges of the wound were gaping a little. Soon a nodular mass appeared in the opening. I called my clerk and asked him what was wrong. "Sarcoma," he said. "What is sarcoma?" I asked. "Look it up," he said. "What will be done now?" I asked again. "Nothing more can be done," he said. Then it began to dawn on me that he was more concerned about the patient than interested in my ignorance, and I retired hurt to "look it up." That was my first introduction to the tragedy of inoperable malignant new-growth.

Aseptic surgery was unknown in those days. Antisepsis was enforced in many different ways. Mr. Chiene, the professor of surgery, would not operate except in a cloud of carbolised steam hissing out of a "carbolic spray." If the tiny nozzle of the spray became blocked, as it was apt to do, the whole surgical unit froze—except the "spray clerk," who engaged in a heated argument with the recalcitrant spray. But the surgeon would stop at once, clap a huge pad soaked in carbolic lotion over the operation area, and glare at the unfortunate spray clerk until he succeeded in starting the spray again. I knew all about it when my turn came to be spray clerk.

Other surgeons, regarded by us and by themselves as daring fellows, discarded the spray, and merely kept the open wound bathed in carbolic lotion. The results were remarkably good by either method. Rarely did any infective microbe succeed in raising its pyogenic head, and bac-

teria were given every sporting chance! No masks, or gloves, or sterilised garments were worn. On the contrary, some surgeons took pride in wearing old operating coats stained with jets of blood from many spouting arteries, while we, with awe and admiration, gained the impression that, the more gory the coat, the greater the surgeon.

Chloroform was the universal anaesthetic. It was given on a towel by the student clerks of the fourth year, each taking his turn. Death from chloroform was not regarded as a serious risk. Indeed it seldom happened, perhaps because the anaesthesia was good and deep. As a matter of fact it never happened in the wards in which I worked, while I was a student. The surgeon in charge used to say, "I'm a dangerous man, gentlemen, a dangerous man!" meaning that, by the law of averages, he was due soon to have a death from chloroform. It was not long until his forebodings were unhappily realised.

The surgical resident, under whom I worked, was James Ritchie, who became known to later generations of students all over the world by "Muir and Ritchie's Bacteriology." He was a delightful person, always cheerful and helpful. He guided my unsteady footsteps through surgery, and allowed me to work with him late o' nights.

In the side-room off the surgical ward, there was an array of specimens in jars, and one evening Ritchie asked me to clean out the jars. I thought he said to clear out the jars, and I did my best. The look of consternation and horror registered on Ritchie's expressive countenance, when he saw an array of clean but empty jars next morning, would have won him a fortune on the movies. The things that once were in the jars turned out to be the pet knee-joints that the professor had excised. My rescue of all of them from the place to which I had consigned them, and which I never will reveal, must rank as one of the heroic achievements of my life.

All's well that ends well—in Obstetrics.

My first venture in obstetrics was something to be remembered. I had been well grounded in management of childbirth by Milne Murray (of traction forceps fame), who was one of the most charming of the many able men whom I met in those days. But I had never seen a child born when I was first called to attend a woman in labour. We students had to work in couples, under the direction of a dispensary doctor, and had to attend a given number of patients in their poor homes.

In the very small hours of one morning I received the call, and hurried off to my first "case," hoping all the time that I would not be the first to arrive. But my partner lost his way, and I got there alone, just before the baby came.

Fortunately, it was a natural and easy labour, and not the first through which the mother had come. She was a plucky little woman, to whom I am eternally grateful, for even in that hour of stress she could raise a twinkle of humour when telling me what I ought to do. By the time my partner found his way there, everything was in order (thanks to the mother), and I proudly showed my first baby to make him properly envious. Then the father, wreathed in smiles and alcoholic vapour, shook our hands warmly and passed us out into the cold mist of the morning.

The next event was a partial placenta praevia, and again I was first on the scene. Fortunately, the call had come in the afternoon, and the unexpected haemorrhage made me send for the doctor at once. Both mother and child were delivered in safety. For some reason, which I do not remember, a nurse could not attend, and I was left in charge of the exsanguine mother all night alone. It was a dreadful night for both of us. For, in my anxiety to prevent infection, I had douched her too freely with mercuric chloride solution, and she developed slight symptoms of poisoning. And did I say alone? All through the night innumerable unmentionable insects held high carnival in the room, climbing on the bed and up the walls, and—I passed the long hours squashing them on the floor and on the walls, until the patient asked me to stop because I was making a mess of her nice clean room. I had to stay strictly on the defensive till nurse and the morning came to relieve me.

Clinical Medicine and Clinical Pathology.

After graduating in medicine, I had the good fortune to be chosen by Professor T. R. Fraser to act as Resident Physician in his wards at the Royal Infirmary. As Dr. Alexander Bruce was his Assistant Physician, I had two men of the highest distinction to guide me in my work. The notorious No. 6 Ward also fell to my lot, where acute poisonings, delirium tremens, drunks and mistaken cerebral haemorrhages kept things lively for the resident in charge.

I look back on my residence in hospital as the most interesting time of my life and the most precious part of my training. For the awakening of responsibility, for the development of confidence, and for the better understanding of medicine, it stands alone. Graduates, who have never acted as resident physicians or surgeons, can never know what a priceless experience they have missed.

My first experience, however, was distressing. It was my first day on duty, and the first patient to be sent down for admission was a little child obviously dying from heart failure. Beyond that stark fact I could not find anything wrong, and I was terribly worried because I thought that I should have found something more definite. I did all I

could to save her, but she rapidly sank and died. I was somewhat consoled when the autopsy revealed something that I had never seen before, and have never seen since—a mass of caseating tuberculous granulation tissue (tuberculoma) about the size of a pigeon's egg embedded in the muscle of the left ventricle.

I am sorry to have to say that the students and residents in the teaching hospitals of Sydney have never enjoyed the training in clinical work that we were given in Edinburgh. There practically every ward was a self-contained working unit. Each of the principal physicians was allotted a complete ward (about 24 beds) for men and a half-ward (about 12 beds) for women, and that constituted his territorial unit. Attached to the men's ward was a ward laboratory, or "side-room," in which all the clinical pathology of the unit was done by the students and the resident. The clinical pathology of that time was very elementary, but still it was clinical pathology, and it was done as a matter of course. Its educational value was incalculable. It kept both students and residents in constant touch with the fact that medicine walks hand in hand with pathology. It was a constant reminder that any medical man, with a little care and training, could make his diagnosis certain by means of some simple microscopical examination or by some simple chemical test. A sphygmomanometer and an ophthalmoscope were also part of the ward-laboratory equipment.

The "follow-up" autopsy was too interesting to be missed, particularly when it showed up a mistaken diagnosis, for example, when an alleged aortic aneurism, whose "expansile pulsation" the whole hospital had been invited to palpate, proved to be a "lymphosarcoma" of the mediastinum (though we now know that even that was probably the mistaken diagnosis of a bronchogenic embryonal carcinoma).

Many years later, in Sydney, I remember an occasion when two distinguished doctors differed, one holding that the patient had an abdominal aneurism, the other maintaining that the aneurism was intrathoracic. The argument was continued on the floor of the post-mortem room, and it was a dramatic moment when the autopsy revealed that both aneurisms were present.

Admission to an Asylum.

The residents at the Royal Infirmary worked very hard and very late and, when our time was up, we were all very tired. I was not good enough to be selected as a resident on the surgical side, but I had some extra months on the medical side because my successor took ill.

Thereafter I was lucky enough to be "admitted" for about a year to the great Morningside Asylum under Dr.

Clouston and four or five other doctors. These men were all keen workers and advanced thinkers, guided by the principle that insanity was not a mental disease, but only the mental expression of some physical disorder; so that, if they could cure the body, the disorder of the mind would cease. For me it was a true asylum, a good rest and a stimulating environment. I owe much to Ford Robertson, a pioneer in the pathology underlying mental disorder. If an "accident" had not happened, I might have been absorbed into that work.

Perhaps nowhere but in a mental hospital are tragedy and comedy so intermingled. At that period in history Mr. Punch, greatly daring, startled the world, and consolidated "l'entente cordiale," by translating "Love's Last Shift" as "La Derniere Chemise de l'Amour." One of the inmates of the asylum followed the lead by developing sudden impulses of stripping off her garments without stopping at her "derniere chemise," so that first aid had to be hurriedly rendered.

About this time too one of the doctors, walking through the grounds, mistook an outside gardener for one of the inmates, and the gardener returned the compliment by mistaking the doctor for a patient. The interview proceeded by amiable and encouraging remarks from the doctor, punctuated by stony glares from the gardener. The interview ended when the man of action, in utter exasperation, raised his spade and routed the doctor by proclaiming, "Ye deleerious deevil, if ye dinna stop yatterin at me, I'll split yer heid wi' ma shovel."

Life's Little Accident.

After my year in the asylum, the accident happened. I met the Professor of Pathology. He accused me of having no visible means of support. I pleaded guilty. He then asked me to join his staff at the University, because he could find no one to take the place of his junior assistant whose health had broken down. Thus quite by accident my career was determined. I became Professor Greenfield's junior assistant under Robert Muir, the senior assistant. Later on I was also appointed pathologist to the children's hospital, from which I brought some specimens to Sydney.

When Muir got his first chair of pathology, I succeeded him as senior assistant, lecturer in bacteriology, and one of the two pathologists to the Royal Infirmary. Practical bacteriology was not a compulsory subject in those days, but was taught by the lecturer to a select company of volunteers. Soon afterwards I was chosen to be one of the tutors in clinical medicine. Rainy and Hutchison also acted as clinical tutors in my time. Pathology by day, tutorial medicine on two evenings a week from 7 to 9 o'clock, and

golf on "Saturdays off" and in the long summer evenings continued my education.

Golf of course, and on any course, is pathology. It conforms to my definition as the defensive reactions of living tissue to an adverse environment. It reveals possibilities of unsuspected incapacity, relieved by performances of unsurpassable achievement, which in one's self are known as true form and in one's opponent as pure luck.

Clinical medicine continued to illumine all my pathology. The professor of pathology in those days was also one of the three professors of clinical medicine, and Professor Greenfield was noted for the accuracy of his clinical diagnosis. He was also noted for a kind heart and a caustic tongue, both of which he used in teaching me pathology. I remember demonstrating a "tuberculous spleen" from an autopsy that I had made. The professor came in while I was speaking, but did not give me away before the students. When they had gone, he glanced at the spleen and said, "That is one of the best examples of a Hodgkin's spleen that I have ever seen." Mistakes like that were unforgettable stepping stones to higher things, and it was a wholesome discipline to confess next day to the students.

Adventures in Sydney.

It was an adventure to leave Edinburgh and all its cherished associations and friendships, in 1902, and to begin the work of the first chair of pathology in the University of Sydney. The provision for that work was appalling. My heart sank when I was introduced to it with all solemnity. The suite of rooms can still be identified in the old Medical School. Room No. 12 was the professor's "retiring room." The adjacent room, No. 13, was the only laboratory. The practical class room was the southern half of the present practical class room, No. 14—a dividing wall running where the big girder in the roof runs now. The northern half of the present practical class room was taken up by a short wide corridor and a room in which all bacteriological work like making of media and sterilisations had to be done. A share in a lecture theatre upstairs (long since dismantled) and in the museum (as it stands now) completed the Department of Pathology, which then and for the next thirty years included bacteriology. It took a long time and much persuasion to get the department gradually extended to its present dimensions. The Senate had been told the usual "fairy tale" that the appointment of a professor would not entail more expense beyond his salary, because ample provision (save the mark) had been made for his work.

At that time, and for many years afterwards, I also acted as Honorary Pathologist to the Royal Prince Alfred

Hospital; and, with the help of a resident pathologist (who was often called away to do clinical work as well) and a laboratory attendant, I did all the pathological work of the hospital. With the growth of the Medical School and the development of pathology and bacteriology, that became a hopeless undertaking, although, by that time, I had the help of a greatly increased and highly expert staff. I hung on until 1925, when I was granted relief from an impossible position, and became Consulting Pathologist to the hospital.

Haematology and Post-Graduate Work.

When I arrived in Sydney, it was a great shock to find that no provision had been made for the training of students in clinical pathology at the hospital. No ward laboratories were available, and the students had never examined a stained blood film, nor counted the blood cells, nor estimated the haemoglobin. So we undertook the teaching of practical haematology at the University. Our first post-graduate course was given in 1905 and the subject was haematology. That course was so well attended that other post-graduate courses were given in later years, until the increasing number of undergraduates and the advances in pathology and bacteriology (without an adequate increase in the medical and technical staffs) forced us to abandon post-graduate work.

We have continued to develop the examination of the stained blood film to an extent which I have not seen done in any other University. But the value of that training in haematology was largely lost, because the student had no means of following it up at hospital.

The Fate of the First Ward Laboratories.

A few years after my arrival in Sydney, when some new wards were being opened up in the hospital, I managed to get a room in each ward fitted up as a clinical laboratory with a microscope, haemocytometers, etc., on lines very similar to those in Edinburgh; and for a time the outlook for clinical pathology was very promising, residents and senior students undertaking the work. But alas!

At this distance in time I am not very clear what happened. The basic trouble was that the ward laboratories did not form an integral part of any self-contained working unit, because there were no such territorial units for the senior physicians and surgeons. The result was that it was difficult to maintain an effective control over the ward laboratories. The resident pathologist did his best to be in many different places at the same time. The students were enthusiastic about counting the blood cells, but not so enthusiastic about cleaning the pipettes, so that the next student was dismayed by a dirty pipette. Still, it was a

beginning, and I think that the ward laboratories would have survived the troubles of their infancy, had they not received their coup de grace by being "required" as dining rooms for convalescent patients!

The Fate of a Further Appeal.

In 1908, just 25 years ago, I began another campaign to improve the hospital work in clinical pathology, and ended by making the following appeal:

"One of the most serious obstacles to the scientific investigation of disease at the hospital is the absence of proper side-room accommodation. The result is that the greater part of the routine clinical pathology has to be done in the pathological department. Hence the staff, the accommodation, and the appliances of the department are overtaxed. The honorary staff, the residents, and the students are hampered in their investigations of diseased conditions. Many important examinations have, therefore, to be neglected, and the welfare of the patients and the training of the students consequently suffer. I cannot too strongly urge upon the directors that the provision of adequate side-room accommodation is essential to the development of the pathological work of the hospital."

The effect of this appeal was to excite such a violent inflammatory reaction on the part of certain medical members of the Hospital Board that, although many non-medical members were sympathetic, the development of clinical pathology along those lines received its death blow. Reform was hopeless. Hospital construction and reconstruction continued throughout the years without regard to the value of a self-contained territorial unit for every senior physician and surgeon, and without regard to the need for ward laboratories or side-rooms, in which the residents and students could do clinical pathology. I could only concentrate on my work within the departments of pathology at the University and at the hospital.

Clinical pathology at all the hospitals has developed tremendously since those days; but it has been done almost wholly by an expert staff. It goes without saying that it has been very well done. But in all teaching hospitals, which have accepted responsibility for the proper training of medical students, such provision should be made that senior students and residents should be responsible for some of the pathological work of the hospital, just as they are now made responsible for some of its clinical work. After all, the one is just as much "clinical" as the other.

Apart from its invaluable educational effect, such a reformation would be an obvious economy, since it would relieve the expert staff of much routine work and set them free to do better work for the hospital. It is a matter for

congratulation that the new Professors of Medicine and of Surgery are themselves expert pathologists, and that they lost no time in trying to reintroduce this reform. It would be a worthy consummation of the Jubilee of the Medical School if their efforts were crowned with success.

More Pavement for Hell.

I came upon the rough draft of another memorandum on clinical pathology; but I have no note of where it was sent, nor of when it was written, though from its context it would appear to be five or six years old. I quote two paragraphs:

"For more than 25 years I have been urging that more attention should be given to clinical pathology during the whole period of a student's work in hospital . . . I fully and gratefully recognise that many clinical teachers in those later years do try to make their students realise that the scientific subjects taught in the earlier years of medicine are the basis of all scientific clinical work; but there is no general support for that scientific attitude throughout the teaching hospitals. In particular, there is no systematised attempt to impress on the student the importance of clinical pathology in all its branches, though here again many of the hospital pathologists do what they can to remedy that defect.

"It was never intended by me that the University course of pathology in the fourth year should be the end, but rather that it should be the beginning, of a student's training in pathology. It should be a systematised and carefully prepared foundation for his more clinical subjects of the fourth, fifth, and sixth years; and it should be supplemented by special attention to clinical pathology during the whole currency of the fifth and sixth years."

I have said that I do not remember where this memorandum went, but I am afraid that I know too well. Like all my previous efforts to reform the training of the student in clinical pathology, it went to increase the acreage of the pavement in hell.

The Bright Side of the Picture.

The bright side of the picture is that pathology has always had many good friends on the governing bodies and on the staffs both at the University and in all the hospitals. A few medical men have, upon occasion, been openly hostile, or have entertained perverted notions concerning pathology, so that its development has been checked at critical stages of its career. But with the advent of the new Professors, and with the opening of the new Medical School nearer to a teaching hospital, pathology is now assured of that clinical renaissance for which I had hoped many years ago.

The best friends that pathology has ever had have been the students in their courses. They have educated and corrected the Professor in his endeavours to educate and correct them, and he gratefully acknowledges his indebtedness. Their appreciation of any help that has been given them, and their interest in their work, have been a constant inspiration to the teaching and laboratory staffs. As each fourth year in medicine draws to its appointed end, just as we are all getting to know one another better, a premature parting comes; and then the danger is that the student may think that he is done with pathology, when he should be made to realise that he has barely begun.

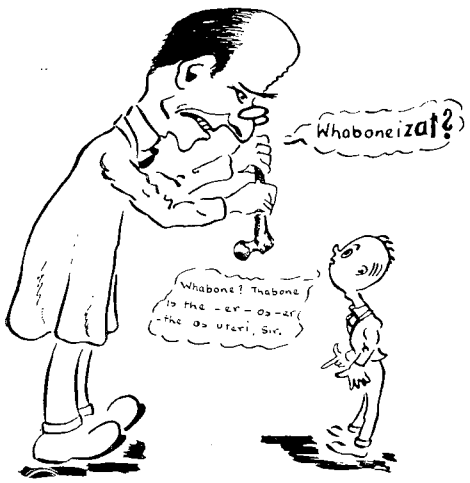
I cannot too gratefully acknowledge the splendid help that I have received throughout all those years from my medical and non-medical staffs both at the University and at the hospital. At the University I began with a single attendant at two guineas a week (which went further than four does now). He was well worth the money for his expert technique in dancing the Highland fling and for his acquired immunity to the more virulent types of alcohol; but he was not worth "saxpence" for his other qualifications. Since then I have had, in all the departments under my charge, only one black sheep, and a succession of the most devoted and honest workers that any chief could desire. Many of them have risen from the ranks of the untrained to develop the highest excellence in their special techniques, and have been passed on to positions of responsibility inside and outside the University. George Macdonald followed me from Edinburgh and has been an ever present help to me and to every generation of students.

Of my medical staffs at the University and at the hospital I can never speak too highly. They have helped me to overcome many a difficulty, but it would take too long to chronicle their achievements. Two of them gave their lives for their work. T. C. Parkinson died of pneumonic plague while engaged in research on plague in London, and every year a prize is given in memory of him. Froude Flashman died of acute pneumonia when he was on active service in France. Both of those men were among my most distinguished assistants and personal friends. At one time Flashman, Graham Butler and I used to work in our laboratories at the University into the small hours of the morning. Then I would retire to a stretcher in one of my rooms, while the others would face the perils of the long walk to Rose Bay and turn up next morning smiling.

Before the great war broke out, pathology was firmly established as one of the great teaching departments of the University, and it owes that position largely to the galaxy of talent that I had to help me. Barling was my first resident pathologist, and he has been associated with me in

pathology for about thirty years. I have had the cream of medical graduates on my staffs. In addition to those already mentioned, I have had Elsie Dalyell, Marjory Little, Mona Ross, Walton Smith, Hamilton Tebbutt, B. T. Edye, Keith Inglis, Oliver Latham and many others. They could not stay with me for ever, but they have gone to other work of distinction in pathology and medicine and surgery, and they are none the worse for having done a little pathology with me.

When war broke out, all past and present members of my various staffs who were free to go went to many different battle fronts; and there, with valour and science, men and women alike engaged the four dread horsemen—war, famine, pestilence and death. Tradition has it that one of them covered himself with glory—and with little else—when he tore up his clothing to make bandages for the wounded, and then, clad only in his boots and identification disc, led the survivors to victory in a last desperate charge. That is the stuff of which my staff was made.



No. 4.—Applies himself to Anatomy.

"WHILE WE WERE PASSING THROUGH MEDICINE."

Unofficial History

BEING AN INTERVIEW BY I. I. BRODSKY.

SCENTING the unusual in a prosaic happening, regiments of eager boys were in attendance at the University, on a certain Saturday in June, 1886. Their presence was explained by a terse announcement, which had appeared in the cold print of "The Sydney Morning Herald": "Wanted—A Boy. Apply at 2.30 p.m. on Saturday afternoon."

There may have been depression (O.T. financial anaemia) in the 80's. Whether this was the reason, whether it was due to the imperious behest of a spirit craving hungrily for adventure, is problematic. Anyway, 117 lads were there, to vie with each other for an interview. Each pressed forward, in turn, to advance his claim. To Mr. John Shewan fell the lot of investigating their merits. One, two, or three crosses were placed opposite the name of each boy, according to Mr. Shewan's opinion of their relative values. Against one name were pencilled two crosses, but just as the boy was leaving he spotted a diagram. "That's a picture of a fly's eye," he hazarded. Mr. Shewan said, "No," but went back and added another cross. On the following Tuesday that boy went to see the late Professor Sir Thomas Anderson Stuart. "Are you afraid of dead bodies?" the Professor asked. Back came the reply—"I don't think I am."

* * * *

And so, Louis Schaeffer began his long association with the Sydney University Medical School, on June 26, 1886.

"I got there at seven, though I did not have to start until eight. That was at the old school, on which part of the Geology Department now stands. As a matter of fact, the present Geology theatre incorporates the old dissecting and injecting rooms, as well as the Anatomy lecture room."

"All told there were about 18 men. Dr. A. E. Mills was doing third year, and the late Dr. Hinder, Drs. Aeneas McDonnell, Henry and Hester were there. And now I will tell you an interesting thing. I have met and spoken with every man that has graduated from the Sydney University Medical School. That reminds me of the late Reverend Rutledge. He was a most remarkable man, a Church of England clergyman, who, while he was going through medicine, was doing all the work in his parish. If he had got through, when he sat for his final he would have been the first graduate from the faculty. However, he stood down for a year—he must have failed—and that allowed five others to pass with him in 1888. When he did secure his degree, he practised both professions. Why, he married

my wife and myself! He was wonderful as a clergyman and wonderful as a doctor."

"Was he a young man?" "Oh, no. Dash it all, he had a family around him, when he started medicine!"

"Did you like your job?" I asked "Louis." "I always liked my work," he said, "but I had a little fear at being left alone, particularly at nightfall. I used to like getting out of that bally dissecting room! I'll never forget one night. There was a conversazione in the Great Hall. Sir Thomas sent me from the hall to get something, which was in the dissecting room. It was a moonlight night. Six corpses were there bathed in moonlight. I raced through, got what I was sent for, and bolted out, not staying to lock-up. I was properly frightened!"

"When we were moving into the new school, we carried everything we could, the remainder being brought over by the old University cart. It fell to the lot of the caretaker (Mr. McLean) and me to bring the coffins across. So we arranged to take them one night. Old Mac and I had one on our shoulders. A chap and a girl were walking across the paddock . . . the girl let out a scream and the pair fled!"

* * * *

Room 26 . . . where one can get with equal facility such widely assorted things as a cake of soap, livers, a piece of string, an elbow joint, a substitute for a cork-lined tray, or any of the 101 requirements of a dissector. Has "Louis" always been in the famous Room 26?

"I was attached to both the physiology and anatomy department at first. The teacher was Professor Stuart (both Chairs), and he had with him Dr. Alexander MacCormick as demonstrator. The latter replaced Dr. James Graham, who, later, was knighted, as well as being installed Mayor of Sydney. Curiously, these three men, who were first connected with the school, became knights."

"Then came Dr. J. T. (Jummy) Wilson. He was brought out from Edinburgh on Sir William Turner's recommendation, and, do you know, we were almost on the point of having the famous Cunningham himself. Cunningham, however, was offered a professorship in Ireland, and Dr. Wilson came instead. I don't think it possible to have met a finer man. He was one of nature's noblemen. He couldn't think a wrong thing, much less do it, and he gained the love of his fellows. Summing up, students stood in awe of Professor Stuart, but took their troubles to Dr. Wilson. Dr. Wilson and Dr. MacCormick used to give picnics to students of their 'years.' They were good oh—I used to go!"

"At this time, I was all over the blessed building—tearing about from one place to another. As soon as Dr. Wilson was appointed Challis Professor, I moved into Room 26. In

The Dream That Has Come True.

PROFESSOR J. T. ANDERSON STUART.

Reproduced from "Sydney University Medical Journal," October, 1916.

those days we had no difficulty in securing bodies. In fact, we were getting more than we required, and we had to notify the undertakers not to send any more. Were there any notorious people sent? Well, we did get the body of Jean Luie, who, I believe, had something to do with the great Tichborne Case, and another one, perhaps, was the body of a man 108 years of age. Professor Wilson took an interest in that one, looking for signs of fatty degeneration. Incidentally, the first 'part' that the Professor ever demonstrated, is still in the medical school. It is an arm dissected by J. F. Holle, who died, I think, before he got his degree. How do I know it? It's in the tank in the prosectory, and I know it, as well as I know you."

"Prosectors in those days used to be prosectors. Their duty was to prepare parts for demonstration daily. They had to work like niggers, but, by George! they would regard themselves behind the times if they weren't ready. The prosectory was started by Professor Wilson, in the room now occupied by Mr. Richardson. When Dr. Grafton Elliot Smith was appointed demonstrator, the prosectory was shifted to its present site. Dr. A. E. Mills was the professor's first demonstrator, and another was Sir Norman Kater."

* * * *

Now the question was put—"What were the students like?" "Oh, bonny! They took their dissecting keenly—keen enough in all conscience. I have never known a 'year' that has not taken its dissections keenly!"

"Dr. Mills was a great admirer of the professor's methods and he insisted on them, in a stentorian voice. When he was 'towelling-up' a fellow, you could hear him all over the room. Second and third years used the big room. After the new wing of the school was added, the dissecting room spread across to occupy the whole top floor of the front elevation (including the present photography room). The dissecting room, upstairs, was added when Professor Hunter was in charge, Dr. Maguire, I think, originating the scheme."

"The war-time crowds were dashed good fellows. There were so many of them that the gallery was erected in the Hunterian theatre, which was originally used by Sir Alexander MacCormick for surgery lectures. He left the Anatomy department to take over this position."

"What was the biggest practical joke?" "Well, the best thing I ever saw was a pinnacle of stools extending from the floor to the ceiling. Concerned in it was Sir Herbert Maitland. By the way, we used to use lard and vermilion for injection, and it was Sir Herbert who found out that this mixture, when scooped out of a large artery, could stick to the ceiling."

"Arty"

DR. ARTHUR E. MILLS.

Reproduced from "Sydney University Medical Journal," October, 1920.

The old demonstration surface anatomy specimen, which occasionally horrifies visitors, by propping himself up in a corner, with the business end of the fire extinguisher in his mouth, is an interesting identity. "He was injected in the usual way and then he was hung right at the top of the lift well for 12 months. Then he was varnished. He was highly respected for some time, but the fellows don't give him any respect now."

* * * *

"Professor Wilson started the museum. At first it was located around the walls, under the Vessalian theatre gallery. Later it went over to the place it now occupies, and in which Dr. Storie Dixon used to lecture Mat. Med. With the advent of T. K. Potts the museum went ahead. The first specimen he did was on the head and neck. He dissected differently from most fellows. First he would read up all about it, and then he would go straight and dissect it. Golly! it was amazing the speed at which he used to do them."

"Really and truly, I have made it a point to ask how our museum compares with those overseas. Many of the dissections are unbeatable, and the quality of the specimens is far ahead of many, and excelled by none."

* * * *

"Without doubt, John Hunter was a genius. I think I can say, without being misunderstood, that I influenced him to take up an academic career, and I brought him under the notice of Professor Wilson. He was absolutely wonderful. Do you know what I have seen? He used to give a demonstration each week and every student used to pack in. He could make the thing live before their eyes. So much of a coach was he that I had to go around and engage the Darlington Town Hall for him—he had about 50 students—and he was only in second year! He was teaching Neurology practically before he had learned it himself."

"I got to know him more quickly than any other man. He was practically last to leave the lecture room, and was always turning over the specimens. You couldn't help liking him, and he used to spend all of his vacations in the Anatomy department. I sent a cable that he had been appointed to the full Chair."

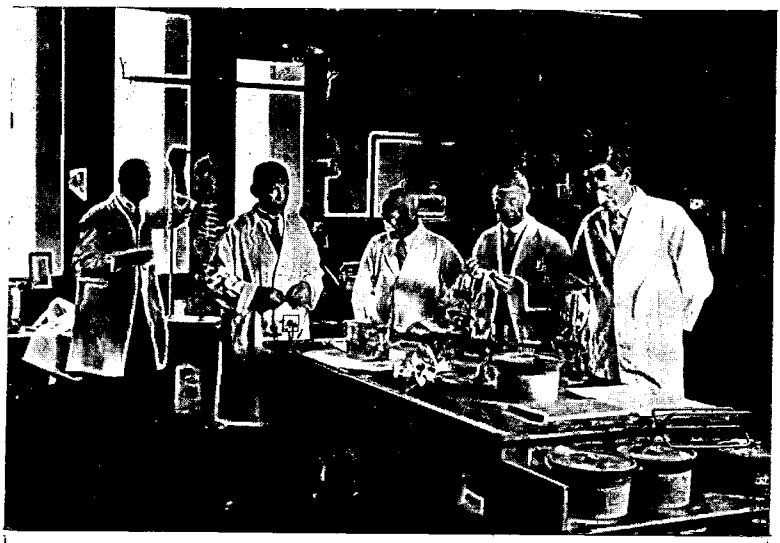
* * * *

"There have been some wonderful instances of men determined 'to get there.' One man worked in the Public Library. He took two years to do every 'year,' and eventually he got through holding down both jobs. Another, used to work at a timber yard, and one vacation he spent as a 'boots' in an hotel."

Alas! Poor Yorick.

PROFESSOR J. T. WILSON.

Reproduced from "Sydney University Medical Journal," October, 1916.



The noiseless foot of time steals swiftly by but our old friends still carry on. In the group, from left to right, are: W. Jamieson, L. Schaeffer, G. Burfield, G. McDonald, W. Bagnold.

For about fifty years, it is said,
He has served both the quick and the dead;
Has condoned students' follies
With "By Gum" and "By Gollies"—
Without Louis it wouldn't be Med.

Though he says, "That'll cost you a zac!"
If some Path. notes you happen to lack,
What Mac. most enjoys
Is assisting the "boys"—
Long life and good health, Mr. Mac.!

When the chances of passing seem slim
Because our knowledge of chemistry's dim,
Jimmy Rofe is our mark—
A bright light in the dark—
You're a hot-dog on Bio-chem., Jim!

He has dwelt in a northern igloo—
Argued Phys. with the Raz of Pooh-pooh—
He's a man of great lore
Is Burfield. What's more
He is a Number 1. Gentleman, too.

"A little chap there used to sell fruit at the railway station, and another I knew was on a milk cart before coming to the school each day. They're chaps you admire, don't you?"

* * * *

"Everyone wants to know who was the first woman to come to the Medical School. I think it was Miss Dagmar Berne. When we came to Sydney from Melbourne we went to live at Tempe. My father and myself used to drive in from Tempe, and Miss Berne lived in St. Peters. We used to pass her place and often gave her a lift. The next was Miss Harriett Biffin. She was a great favourite with the boys."

* * * *

No history would be complete without some reference to that exquisitely refined torture known as the examination system. Shades of the inquisition! "Professor Wilson used to set the Adelaide papers in anatomy, as well as those at Sydney. The Adelaide exams. were held a few months earlier, and he set the Sydney fellows the same paper. He did that only once!"

* * * *

"The department has progressed and expanded. One would not expect it to go ahead by leaps and bounds. I reckon it has been progressive from the start, and each professor has done his bit towards its expansion."

"I have had a wonderful time in the department. We have had such a succession of gentlemen that you couldn't help liking them."

"In a sense I am married to the department. . . . I've really lived for it. I suppose I am of some use now and then, in some way or another."

"Hours have meant nothing to me . . . they have let me run around, sweet willed, and a fellow just couldn't help doing his best."

In paying tribute to the energy and enthusiasm of those responsible for the establishment and administration of the Medical School, let us not forget those whose associations with its foundation were quite as indispensable; in particular we must mention two who are still in the land of the living and still on the active list at the University—these are Louis Schaeffer of the Anatomy Department, and John Shewan of the Macleay Museum, to whom we extend our most cordial congratulations.

Travel for the Young Graduate

By VICTOR J. KINSELLA, M.B., Ch.M., F.R.C.S.

IT is the cherished prerogative of those who have gone before, to proffer advice to those who are coming after, and I hasten to exercise my newly acquired privilege. The urgent advice which I would give is "Young man! Travel." The advice is marked urgent, because the opportunity generally presents itself soon after graduation and one must be alert to seize it. If it is missed it may not occur again, for as time goes on the increasing ties of practice and family tend to make the breakaway ten times more difficult. I am grateful to those friends who so impressed this upon me ten years ago.

If you were to ask "Why should we travel?" I would not find the question easy to answer satisfactorily. You will best appreciate the advantages of travel after you have done the travelling. You will then realise that your point of view has broadened and that you have acquired a more philosophic grasp of the conditions amongst which you are destined to live. Your education will have become more finished, both from a general point of view and from the point of view of your special profession, whether it be Medicine or any other. You will avoid the besetting sin of Chauvinisn, defined by Osler as—"that intolerant attitude of mind which brooks no regard for anything outside its own circle and its own school." Of course, the question may still be asked by the Cynic—

> How much the fool that hath been sent to Rome,
> Exceeds the fool that hath been kept at home.

and the Cynic can no doubt point to deficiencies in the cultural qualities of those who have travelled. But how much greater would these deficiencies have been, if the Cynic's victim had never travelled. "Travel is in my opinion a very profitable exercise; the Soul is there continually employed in observing new and unknown things, and I do not know a better school wherein to model life than by incessantly exposing to it the diversity of so many other lives, fancies and usances, and by making it relish so perpetual a variety of forms of human nature"—thus, Michel de Montaigne.

Now for a few general hints. Do not let your trip become a bewildering round of railway stations, hotels, cathedrals, palaces, art galleries, monuments and mural tablets, all quickly looked over to the accompaniment of a babble of tongues which remain as strange at the end of your tour as at the beginning. The proper study of mankind is man, and you will get most out of your trip, if, at the end of it you have come to know something of the humours, manners, customs, language and laws of some

strange people, that you may "sharpen your wits by rubbing them against those of others." To do this you must remain for at least four months in one place, and you must not live with fellow countrymen on the beaten tourist track in hotels where English is spoken. This latter method is, moreover, a strain on the financial resources of the average young graduate. Live with a family of native citizens "en pension." Try and live as the local people live, and do not imitate the stiff-minded folk who order dishes peculiar to their own country and find them cooked differently or indifferently, and then feel badly treated and unhappy throughout their sojourn.

Choosing a Destination.

Where should you go? The flight of time and the shrinkage of one's letter of credit conspire to limit one's itinerary. It would be easy for me to suggest one for you, but I will not do so. If you were to take me too seriously, you would deprive yourself of one of the great pleasures which await many of you on graduation, namely, the planning for yourself of your first European tour. Moreover, I have no intention of compiling for this jubilee number of the "Journal," an article like a Cook's pamphlet or a Baedeker's guide. Wherever you may wander, everything will be new and interesting, so go anywhere. The main thing is, to go. Of course, you will visit London, and then, should you ask me to name at least one Continental city which should be visited, I would name Vienna. I select it for special mention because of the special interest which it must hold for any traveller—lay or medical. Its Medical School has become great and famous in all branches of medicine and surgery on account of the great men who have adorned and who still adorn its laboratories and clinics. Not only has the school been an inspiration in research to workers all over the world, but it has also made special provision for post-graduate instruction in all varieties of medical, surgical and scientific work. The main course in your post-graduate feast should be sought for in London rather than in Vienna. But Austria and Hungary can best provide for you the coffee and liqueurs. Opportunities are provided for practical work under skilled supervision, and it is there possible to secure in a short time a concentrated experience of the more specialised techniques which would require a year or two elsewhere. Thus you may wish to acquire facility with the use of some instrument (cystoscope or bronchoscope), or you may desire some instruction in the technique of some special branch of surgery or even of some special operation, e.g., the radical mastoid operation, or you may seek a revision of some special part of radiology, osseous, alimentary or pulmonary, or you may require some special instruction in modern cardiology. All these may be had with a minimum expenditure of time, under the tuition

of men who are authorities (many of them world-famous) in their special branch of work. If Art, Music, Politics or Civic Government, Languages, History or Ethnology is more to you than Medicine, you will find Vienna a mine of interest and of wonder.

Travelling.

I will relate to you some of my own experiences, in the hope that they will arouse within you an interest in parts of the world other than your own, and a determination to examine them at first hand. It is not easy to know where to start, so you had better sit with us in our railway carriage on the way from Venice, in the middle of winter, well wrapped up in great coat and muffler, the steamy atmosphere in the carriage weaving beautiful frost patterns on the closed icy-cold windows. Gradually the atmosphere gets hotter and hotter till it becomes stifling and we must open the window for a breath of fresh air. Noisy protests greet this procedure, and we learn from our polyglot companions, that even should all but one in the compartment wish to open the window, it must be kept closed in deference to that one. The etiquette of Continental train travelling requires that "the 'closed' have it." At any rate, we remain open-minded, and at every station take such a keen interest in local conditions that we must also open the windows and make a long inspection of the platform, thus refreshing the compartment and ourselves for the next stage.

The next station is Tarvisio, the frontier town, with its full complement of tiresome people, customs agents and passport officials. The opposed armed guards on each side of the imaginary line help us to realise that our own country's isolation has its advantages, as well as its drawbacks. We will, later, better understand the armed frontier guards when we hear about the South Tyrol. We are now passing over the Julian and the Carinthian Alps, but I will not attempt to picture these. My palette is inadequate. At Villach, some newcomers take the place of those passengers who left us at Tarvisio, and soon settle back in their seats to read the evening paper. A name printed large on the front page catches my eye—Clemens von Pirquet. He is one of the men whose clinic I wished to visit; a man whose name becomes an everyday word to us from our fourth undergraduate year onwards on account of the tuberculin test named after him. Born and educated in Vienna, he became Professor in Children's Diseases at the Johns Hopkins University in Baltimore, later at Breslau, and finally in his native city. During the war and in the period which immediately followed it, he devoted himself with tireless energy to the starving Viennese children, stricken with tuberculosis and deficiency diseases. When the American

Relief Commission, under Herbert Hoover, brought food to the famine-stricken people, Pirquet was charged with its distribution and administration. He was as great an authority on dietetics as on tuberculosis. But the ending of this brilliant career set out in the evening paper was a sad one—worry, overwork and finally coal-gas poisoning. We found later that nearly every alternate shop window and cafe in Vienna, displayed a photograph draped in black, of Pirquet, youthful-looking and handsome. We were to find further evidence of the regard which these people have for those whose work in art or in a science helps to keep their city in the forefront of intellectual endeavour. Their intelligentzia are looked up to, as are our cricketers. I could not help smiling when I read, last week, in the daily paper, of the crowds of people who flocked to the wharf to bid farewell to a certain race-horse which was being shipped overseas from Sydney.

Vienna.

The first few days are spent in arranging a plan of work, in looking for suitable lodgings and in getting one's bearings in the city. In all these problems the American Medical Association gives time-saving and wonderfully organised assistance. The office answers all questions. The Delphic priestess or perhaps the oracle herself (Fraulein Engel) has recently been sent to Berlin to organise a similar post-graduate bureau in that city. All medical visitors are welcome to become members of this Association. The ladies also join and preside over the social activities and help with the work of what is probably one of the most interesting clubs in existence, even if not the most exclusive. Hotels and pensions are card-indexed, and herein one can consult the record of these establishments and gather the reputation of one's prospective host (or hostess) by reading the opinions of guests who have already come and gone. I mention this as illustrating the detailed and practical nature of the assistance given by the American Association.

Many of those whom you will read about in this card-index are of the old nobility, living in reduced circumstances in their spacious apartment houses, which have been cut up to make pensions. Taxes upon those who used to live in luxury (the upper class) are so heavy that their beautiful homes become a burden. Immediately after the war the landlord raised his rents to compensate for depreciation of the currency, and if he happened to carry a mortgage he could settle it for almost nothing. He was in an excellent position, carried on the backs of his less fortunate brethren the tenants and wage-earners, and protected by his influence in high political places. Thousands of families of working people lived in one-roomed apartments with a single window opening on to a narrow courtyard and approached by dark passages. But a Socialistic Government

stepped in. Now, the apartment-house owner receives practically nothing but free shelter for his apartments. The rent goes in tax towards the municipal building fund. The tenants pay so little rent, that they also can contribute to this fund—and with it the municipality has built huge blocks of apartments for the working people. The apartments are small, but complete with all modern conveniences and surround large airy courtyards planted with trees and flower gardens. Wonderfully equipped steam laundries and municipal baths are either attached to these apartment blocks or are separately established in the particular district. These baths are magnificent big buildings, some of them as large as Anthony Hordern's Emporium in our own city. The tenant takes his clean linen in a handbag to the municipal bath, pays a fraction of a penny for his hot shower, soap and towel, and finally leaves, after his bath, wearing his fresh linen and carrying his used under-clothing in a bag which he leaves at the municipal laundry. Thus overhead expense is saved and, instead of the family bathroom working for an hour or two each day, the municipal shower works twelve hours a day (and more on Saturday). Each client is allowed to remain in his combined shower and dressing room for only twenty minutes; if his toilet is incomplete it can be finished in the central common room. These municipal apartments and baths illustrate one of the most interesting features of the city—its purely Socialistic Government, which rests in the hands of competent educated men. The sickle and the hammer have replaced the sceptre and the orb in the talons of the old Imperial Eagle. It is rather tempting to describe the peculiar political situation in the city—a powerful municipal government in charge of Socialists, and the Government of Austria as a whole in the hands of a conservative party. Naturally, the sharp dividing issue is the question of the rent laws.

We soon begin to grasp the lay-out of the city and learn to find our way about. The trams are distinguished by numbers. All the important stopping places are furnished with a complete illuminated tramway map of the city and streets, showing the starting place, route and destination of each tram with relation to the particular stopping place. So it is quite easy for the stranger to reach unaided any part of the city. As we study these maps, we realise that the heart of the city is enclosed by a huge circular street called The Ring. Trams do not pass within The Ring, but the Inner City is traversed by several bus routes. On investigation we find that The Ring is a magnificent thoroughfare in which avenues of trees separate the different lines of traffic. It has been built on the site of the old wall which surrounded the town in bygone days, when all Continental cities were thus protected from marauders. Street names at different parts commemorate the ancient gates which gave entrance and exit to the wayfarers of those days and

which were closed and heavily barred at dusk. So far as I could discover, no trace of the ancient wall remains. Instead, The Ring is lined by magnificent parks and buildings. Each park has its striking monuments, and each building has an interest for us. The buildings are mostly of Renaissance style of the heavily ornamented Baroque variety, but the magnificent Town Hall (Rathaus) in Gothic, and the Houses of Parliament in Grecian style, are beautiful exceptions.

Vienne s'Amuse.

The city is a museum of architecture of all styles and of all ages, from the twelfth century remnants in the Cathedral to the twentieth century municipal apartment blocks. Looking out upon The Ring is the old palace, no longer in the hands of the Hapsburgs, but housing the National Library, the old Crown Jewels and various offices and apartments. The old life has gone, and nothing remains except perhaps that Mass is still celebrated in the Royal Chapel. This is built like an Opera House—a pit or stalls surrounded by galleries of private boxes. The structure is still the same, but how different is the congregation. One can imagine the Emperor in the royal box, the other members of the family and of the nobility in their boxes, and others associated with the Court seated on chairs below in the body or pit of the chapel—the men in brilliant uniforms and the ladies in beautiful dresses and wearing priceless jewels. But now the boxes are rented by the bourgeoisie and by tourists of all denominations who come to hear the orchestra, and the pit is packed so tightly that no room can be found for chairs or benches, and the people must stand throughout the service because there is no room to kneel, and all are dressed in sombre browns and black. On the other side of The Ring are the Museum of Art and the Museum of Natural History, separated by the statue of Maria Theresa with her generals. The University and the Opera House are other notable buildings on The Ring. The Rathaus is to become a particular friend. On top of its lofty spire is a tiny figure—the Rathaus Mann—really a giant in armour, twelve feet tall, carrying the city pennant and keeping continual watch. The basement is of more practical interest, for it houses the Rathaus Kellar, a famous restaurant with over two hundred dishes on the menu —a paradise for the gourmet.

Restaurant and cafe play an important part in the life of the people, because so many live in apartments and go out for their meals. Each cafe has its excellent orchestra, daily and weekly papers are provided in abundance, each mounted on a cane frame so that it can be manipulated with one hand while the other is employed in ministering to more physical needs. Guests are at liberty to sit down and enjoy these amenities for an unlimited time.

The Viennese discuss their business and politics here while sipping coffee with schlagober (whipped cream) for which the city is famous. Perhaps they will also order a "kipfl"—the little roll of bread baked in the shape of the crescent moon, a reminder of the days when Vienna, well prepared and stocked with food, was besieged by the Turks, whose supplies got lower and lower until they were finally forced by hunger to give up the siege. The good citizens baked bread to represent the Crescent Moon and dangled it over the city walls just out of reach of the famished Turks. Amongst our neighbours in the cafe we may note impecunious students who have been very pleased to leave their cold, cheerless rooms and bring their books to a favourite cafe, where they can stay for hours and enjoy the warmth and the light and the music, all for the price of "ein Kafe mit Schlag." Mine host knows them all, and goes round the room welcoming his guests with cheery words, a hand-shake for the gentlemen and a courtly bow to the ladies.

Music—A Tradition.

All the Viennese are music lovers and most of them talented performers. Their city is the home of music. Is it not crowded with students of Music from all parts of the world? And filled with Temples of Apollo—two Opera Houses, the Great and the Small Musical Society Theatres, and numerous others—each of them in use once or twice a day? Every park and every beer-garden has its orchestra. Were not Strauss and Schubert born in Vienna? And did not Haydn, Mozart, Beethoven, Brahms, Gluck and many others choose to live and die therein. A tablet on the wall of the little church near our pension, opposite the Great General Hospital in the Alserstrasse, records that Schubert was buried from that church, and that Beethoven had composed one of his famous pieces therein, inspired by the church bell. Even while we were in the city, the centenary of Schubert's birth was celebrated. Festivities were held throughout the city, the Municipal Government made the day a public holiday, gave a great feast to music lovers and struck a two-schilling piece bearing the image of the composer. What a curious variety of Socialist Government!

The same Government celebrated at about the same time and in similar fashion, the centenary of the birth of Theodor Billroth, father of gastric surgery, and one of those upon whom rests the fame of the modern Viennese Medical School. The dinner was a memorable affair. It commenced at 10 p.m. in the banquet hall of the Rathaus—a magnificent rococo room, with its crystal chandeliers, white and gold walls, mirrors and statues of notabilities. Pupils of the great man foregathered from all over Europe—von Eiselsberg, that venerable and charming old gentleman who at present holds the chair of the First Surgical Clinic in

immediate succession to Billroth; also Payr, von Haberer, Finsterer, Hochenegg and many others well known to the student of surgery. The various courses of an excellent dinner, the speeches and the musical items lasted till well after midnight. And then the dancing! A glorious orchestra and a splendid floor and the Waltz in its very cradle! What an electric effect "The Blue Danube" had on the dancers! Staid old professors—some bearded, some bald, most of them stout and mopping their brows—seized their partners and whirled around the room with amazing grace, inspired by the beautiful and spirited strains of the best waltz ever written—their very own waltz, played just as it should be played. And so the celebration went on till daybreak. What a curious variety of Senior Surgeon!

On the way home we pass by Maria Theresa and her Generals, keeping continual watch over the old Imperial Palace and the great Museum and Art Gallery. Scions of the House of Hapsburg sat upon the throne of nearly every country of Europe, and the family was able to command in a degree second only to the Vatican, the works of the old masters in painting, in sculpture and in all the arts. They took a pride in bringing their collections to their home and favourite city. And so the Galleries are something to marvel at. Even as I write some of the paintings remain in my memory on account of a vivid realism which I found almost startling. Of the Museums, not the least interesting is the War Museum, with its relics of the country's quarrels and battles through the centuries. It seems that within the course of but a few years each European country engages in a bloody mutual massacre with each of its neighbours, flying at the throat of those countries to-day with which it was yesterday allied. One of the particularly notable relics is the coat which Napoleon wore during his escape from Elba. The material of the Great War is packed away in cases, for the city has not the money to spare for its exhibition. But we can see the motor car with its bullet marks, in which the Archduke Franz Ferdinand and his wife were shot at Sarajevo, and we see the blood-stained tunic of the Archduke with the large rip in the breast made by the surgeons, because they thought that the shot was in the chest, whereas, in fact, the fatal wound was in the carotid artery.

The City Has Its Memories.

Vienna itself is a museum filled with romantic and historical monuments, and one feels the ever-present charm of olden times and the interest of living among the remains of past ages, which haunt the buildings, the churches, the cafes and the very streets. As we make our way out to the Franz Josef Spital where Professor Dr. Rudolf Paschkis is giving excellent cystoscopic demonstrations, we realise that we are travelling the road to the Holy Land, which the

Crusaders took centuries ago. Near the Hospital is a remarkable monument which suggests a small tower removed from a Gothic church and placed in the middle of the road. It commemorates the Spinnerin am Kreuz—the beautiful young bride of the Crusader, who bade farewell to her husband at this spot and arranged to meet him here on his return. Every day she waited and watched from daybreak till dark. To support herself she spun and sold the garments to the passing soldiers. Soon she built a cottage at the spot. Crusaders returned and passed by and bought her garments, and months and years rolled on, but her knight did not return and no news came of him. Her friends urged her to return within the city, for surely her husband was now dead, and she was not without opportunity of marrying again. But her faith in his ultimate return grew stronger and stronger. One day an old man, bent and grizzled, after many years of imprisonment by the Turks, made his weary way along the road, looking for the bride of his youth, and he found her still spinning, at the spot where he had left her. They built this memorial to their happy re-union—and it still stands, a monument alike to fidelity and to spinsterhood. Nowadays the spindle and distaff have been replaced by machinery, and the spinster no longer spins, but plays golf, arranges functions, forms leagues and societies and sits on committees.

Then there is the Stock-im-Eisen, a tree stump, centuries old and so filled with rough iron nails driven into it, that there is scarcely room for another nail. We cannot help wondering if the nails were driven by those who tried and failed to withdraw the legendary sword.

A fountain surmounted by the statue of a tattered figure with bagpipes and pockets turned inside out, commemorates the "lieber Augustin," the wandering minstrel who cheered his fellow citizens, sore stricken by the Black Death. Some of his melodies have survived. The most notable is set in English speaking countries to the well known words, "The More We Are Together." But the story of this melody and of Augustin's night in the charnel-pit must wait for some other occasion.

Then there is the bakers' place with the Saracen's Statue. During the siege by the Turks, the bakers' apprentices heard the Turks tunnelling underground, and they saved the city by emptying their water barrels down into the tunnel. The bakers still treasure the large goblet which was presented to them on this occasion. The stem is formed by the figures of bakers' apprentices standing on a prostrate Turk. There is the clock, across the face of which life size historical figures pass all day in never-ending succession so that it is possible to tell the time by the particular monarchs or warriors who happen to be on the scene.

We might also turn by chance into Kolchinsky's Cafe,

where, it is said, coffee was first introduced to Europe—coffee left behind in bags by the Saracens after their hurried retreat from an unsuccessful siege. The cafe has been moved to one of the outer suburbs, only a mural tablet marking its original site in the inner city.

Right in the middle of the shopping centre, the famous Graben, is the curiously sculptured Plague Column—a grim relic of the Black Death. Time and space prohibit me from telling you of the old stone cannon-ball hung outside a doorway in Sterngasse and of the great booming Cathedral bell (the Bummerin) made from captured Turkish cannon.

Not only the Cathedral (Stephansdom), but many other churches of the city are haunted by memories kept alive in sculpture, painting and architectural beauties. There is the Capucine Church with the tombs of the mighty Hapsburgs, including even that of Maximilian, who was executed in Mexico, but not including Marie Antoinette. Then there is the curious Karls Kirche built by the Emperor Charles in fulfilment of his publicly made vow to Saint Borromeo, to build such a church when the plague subsided. Saint Borromeo had been Bishop of Milan 150 years before and was famed for his work during previous epidemics. His body can still be seen dressed in his episcopal robes and lying in a glass coffin in the vault of Milan Cathedral. Then there is the beautiful Gothic Votiv Kirche built in thanksgiving for the escape of Franz Josef from the assassin's knife in 1853. The Minoriten Kirche dates from the fourteenth century and contains a remarkable mosaic by Rafaelli, a huge copy of da Vinci's "Last Supper," made by order of Napoleon Bonaparte.

It would be easy for me to continue—

Everywhere I see around me rise the wondrous world of Art;
Fountains wrought with richest sculpture standing in the common mart;
And above Cathedral doorways Saints and Bishops carved in stone,
By a former age commissioned as apostles to our own.

Week-end Treks.

In spite of the interest to be found in the city, it will be well for us to make excursions during the week-ends and explore the surrounding country. We are curious to follow the Viennese whom we see setting out, young and old, in their open shirts, short trousers (or skirts), Tyroler hats, hobnailed boots, with huge rucksack, Zeiss camera, and perhaps a mandolin. Early on Sunday morning they can be seen in droves of hundreds setting out on the roads leading out of town. Perhaps they are making for the Wienerwald, a great forest which stretches for fifty or sixty miles west and south of the city. This is dotted with inns, where they can lay out their food and rucksacks on the open-air tables, order their half-liter of beer and then, if need be, remain for the night. The maze of tracks in this forest is

marked by coloured patches, painted on the trees above the usual line of snow depth, and the various tracks are marked in corresponding colours on the maps of the Wiener-wald. Or perhaps they are making for the Rax, that very steep mountain which we surmount by being hauled up in a cage suspended from a huge steel cable slung up the mountain side. There is a glorious view from the top, good shooting and excellent ski-ing. Let us stop the night at the Otto-Schutz Haus, a shelter which was a favourite of the old Emperor Franz Josef. We pay a contribution here to the Alpine Aid Society which maintains guides and dogs for the succour of those lost in the snow. Each room has its guest book. We look through ours and find that we were the first English speaking guests—and now we are looking forward to our next happy holiday in the Hermandl-Zimmer. Another district which we must visit is the Wachau—a part of the Danube Valley west of Vienna. We cross the river on a punt which is held by steel cables and propelled by the river itself, the direction of travel being determined by altering the direction of steel vanes below water level.

We pass many castles and palaces on our excursions—in the suburbs, in the Wiener-wald and along the Danube Valley—

> Memories of the Middle Ages, when the Emperors rough and bold,
> Had their dwelling in the castle, time defying, centuries old.

Kreuzenstein and Lichtenstein were built in mediaeval times, and the former has been suitably restored and furnished, so that if the ghosts of the Burgraf and his Knights were to return they would find the castle equipped for their life as it was in the Middle Ages. Belvedere and Laxenburg are worth visiting—the first built for Prince Eugene of Savoy, the second a favourite residence of the Babenburgs and Hapsburgs. Schonbrunn is quite modern and provided a residence for Napoleon when he was master of the city. Most of the older castles are, for obvious reasons, built in most inaccessible parts, on the summits of steep hills and commanding, from their turrets, extensive views of the surrounding country.

But to return to our trip in the Wachau—we must make a special point of visiting Durnstein and the ruins of its castle high up on the hill, in a bend of the Danube and commanding a view of the river, both up and down stream for many miles. In the 12th century, Richard the Lion-Heart was captured on his return from the Crusades and imprisoned in this castle by Leopold of Austria. Tradition tells us that he was found here by his faithful minstrel, Blondel, who travelled Europe, playing the King's favourite melodies in order to discover the whereabouts of his royal master. As we leave Durnstein it begins to rain and we

hurry for shelter to a building in the cemetery near-by. This proves to be a vault filled from floor to ceiling with a confused and unprotected heap of bones, many of them broken and with marks on the skulls which look like bullet or sabre wounds. We learn that these are the bones of Napoleon's soldiers, killed when the French, under Marshal Mortier, were defeated by the combined Austrians and Russians at Loiben in 1805.

If we have but a half day to spare for our excursion, we should explore one of the outer suburbs such as Grinzing, in search of one of the places with a green bush fixed outside the door. This marks the Heuriger, the merry-making and music with which the natives broach the new wine. We are very welcome to join the festivities and share the vintage (which tastes rather sour to our unaccustomed palates).

The huge park called the Prater, once a game preserve of the Hapsburgs, is now a well known and popular rendezvous. As we approach it we pass the Admiral Tegetoff Memorial, to the Austrians a bitter reminder of the days when they had a sea-front and a fleet. Long before we reach the park we see the great ferris-wheel; around this are the various side-shows, cafes and dancing places, like our White City or Luna Park. Here we can, for a few groschen, visit the Anatomy Museum, full of lurid, highly coloured wax models of all kinds of venereal disease in male and female, also pregnancy and labour and various obstetrical operations. By an arrangement of stage scenery and various movables, one can also have one's photo taken in any sort of role—heroic, physiological or ludicrous. Beyond the side-show corner, stretches for about four miles the great park with its lakes and avenues. The main avenue is the finest I have seen—four miles long—with six roadways flanked by seven lines of large trees, which, in the summer time, meet overhead and make a completely covered way for the pedestrians. The beautiful flowering horse-chestnuts flank the footpaths and have inspired many a song—"Im Prater bluhn wieder die Baume."

The Viennese As Sun Worshippers.

One of the great charms of Vienna for the younger folk is the variety of sport provided by the climatic conditions. In winter the lakes freeze and excellent skating and skiing can be found within tram ride of the city. In summer the weather is so warm that swimming in the Old Danube (the stream has been partly diverted) is very popular. The swimming areas are flanked by parklands, and in these are open-air cafes, where bathers sit in their bathing costumes for meals. Bathing costume means only a small pair of trunks for the men. On account of ponderous build and embonpoint, the effect is often comical. Cameras are forbidden in the Strand-bad, but, nevertheless, we succeeded

in securing a few surreptitious snapshots. Even in winter it is possible to swim in the luxurious indoor bathing establishments such as the Diana-bad. The large central bathing pool is artificially heated, and at stated intervals it is agitated by artificial waves which provoke much merriment. Flower beds and fern baskets are suspended from the roof and the central pool is surrounded by cafes, hairdressing and manicure parlours. On the roof is the solarium in two separated parts—for no costumes are worn here. We thus find combined two Central European characteristics—sun worship and an indifference to nudity. The War brought for these countries a dreadful sequel of rickets and juvenile tuberculosis. This, in its turn, led to the demonstration in the Viennese Clinics, that direct exposure of the skin to sunlight has a curative effect, similar to that of fresh foods and cod-liver oil, of which there was, at that time, a shortage in Vienna. Later, vitamin research has amply corroborated the finding. On their excursions the people wear a minimum of clothing, and many men have their head shaved and suspend their hat from a small hook on the lapel of the coat. In the parks the young men practise their field sports and gymnastic exercises, wearing only V's. They expose their torso to the public view when rowing on the lakes in the city parks. Nobody feels that it is out of place, and nobody seems to notice his neighbour. On my first visit to the Gansehaufel Bath I unwittingly made myself rather conspicuous and uncomfortable by wearing an Australian "neck-to-knee" costume. I think that I was suspected of concealing some skin complaint, so next time I did as the others did. Clubs for Nachtkultur, in which the sexes mingle unclothed, are not so common in Austria as in Germany. Their periodicals, however, are to be had at the bookstalls. They are quite serious institutions, and no gentleman is at liberty to join except in company with a female relative.

An evening spent at the Accident Hospital proved rather amusing. Many visiting surgeons were asked to a cinema demonstration of fracture management given by Dr. Bohler (please do not make the common mistake of pronouncing this name as though it referred to a black hat of the "hard-hitter" variety). The visitors were invited to bring their wives. In showing the functional results of treatment, even of ankle-joint injuries, it was considered necessary to show the patient completely naked.

Time and space combine to bring my discourse to an end. I hope that I have succeeded in convincing my junior readers of the interest to be found in other lands, and that I have excited in them the determination to travel when opportunity offers. I hope that they realise the force of Montaigne's words quoted earlier, when describing travel as a "very profitable exercise," and may I add that it provides

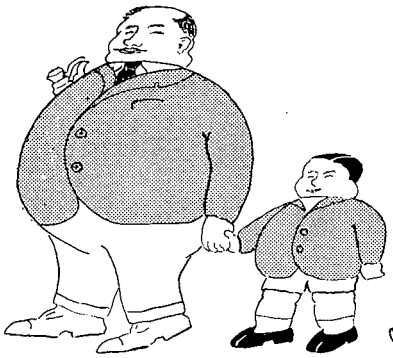
a fountain of pleasant memories which remain throughout life.

Vanished is the ancient splendour but before my dreamy eye
Wave these mingled shapes and figures, like a faded tapestry.

DR. C. BICKERTON BLACKBURN,
O.B.E., B.A., M.D., Ch.M.,
Dean of the Faculty of Medicine, University of Sydney.

TENSOR FASCIAE LATAE (and Madame)

FLEXOR CARPI RADIALIS LONGUS



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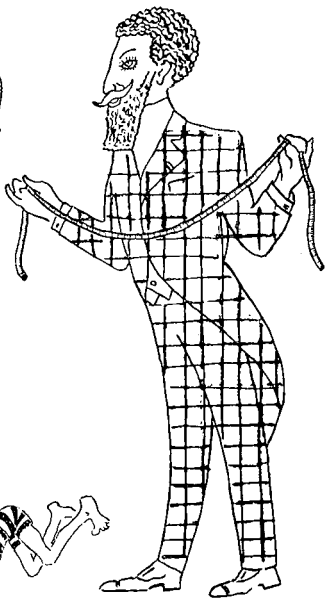

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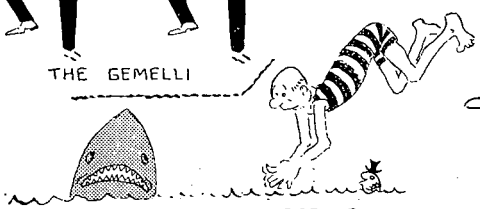


SERRATUS ANTERIOR

PATTESON
ARMY PAGE

Medical Words and Labels

By I. I. BRODSKY.

HUNDREDS of men, it is said, were mixed with the mortar in the Great Wall of China in order to make it strong.

Borrowing the idea, it can be claimed, that hundreds of words from varied sources have been woven into the fabric of Medical terminology to strengthen the supply, and consequently cater for the demand, for accuracy of expression.

Early in the course of medical study, the student is forced into contact with a veritable avalanche of new words. Each day adds to the quota of words to be learned and understood, and beyond doubt it is a tax on the memory. Words, showered on the brain, however, are like mud flung at a wall. Probably the student's vocabulary has been enriched to the extent of 2,000 words, by the time he is ready, if a little unsteady after his "third year" ordeal, to cope with the new year's work. In the next three years, en route to graduation, more words must be met and conquered.

Many a time there will be hasty recourse to the dictionary, and this storehouse must be plundered for its treasures. We cannot have words without thoughts, and the converse, too, holds good.

Some medical words, commonly used in undergraduate and graduate life, are curiously and interestingly derived. Pituitary, the so-called conductor of the endocrine orchestra, has its genesis in the Latin pituita meaning spit, mucus or phlegm. The older anatomists supposed that the gland secreted mucus into the pharynx. The Greek for shield is thyroid. The gland, however, does not owe its name to that fact. Actually, it is named thus, because of its proximity to the shield-shaped cartilage. Few know that the words cretin and Christian are closely related. The latter is derived from the West German Cristin, while Cretin comes from the Swiss patois Cristin. Both are said to have a common origin in the Latin Christianum.

Anatomists borrowed widely in order to describe the structures that were revealed to a wondering and critical gaze. In some animals the fibula is pointed at one end. The Latin figibula, meaning a pin or skewer, was an apt choice. Ankle has a Norwegian source, transferred to the old English ancleow, and corrupted into its present form; and the tibia and scapula, bear their titles, from a fancied resemblance to a flute and a Roman digging tool, respectively. Curiously, the derivation of the "humerus" has never been discovered, though it has been suggested that the name is related to its proximity to the "funny bone"! Greek supplied aorta, literally that which is hung, and cremaster, to hang. Grecian, too, is the source of "hysteria"

(hyster—womb). The wise men of those days apparently succumbed to the tempting proposition, that the marked incidence of the malady in women was more than a coincidence, and ascribed the symptoms to a wandering of the womb.

Galen applied his anatomy. Carotid has its equivalent in the Greek word meaning to stupefy . . . and because compression of these arteries produces stupor (Galen). Evidently, certain ill favored individuals were cognisant of this fact, judging by the popularity of the old pastime known as garroting, which has its derivation in the same word.

Navel is Teutonic and related to the Sanskrit rabha—navel or nave, which is a hub from which the spokes of a wheel radiate. The idea may or may not have arisen from the appearance and relation of the urachus and obliterated umbilical vessels to the umbilicus. Meconium, the normal content of the bowel, at birth, is derived from the Greek for poppy, meconium being likened to the inspissated juice of that flower. "Bowel" is found in middle English and old French. Its Latin ancestry is in the term botellus, the diminutive of botulus, a sausage Two sources, however, are claimed for enema. One is the Greek—to send in; the other is a combination of nema—a worm, and the prefix e—out of.

Materia medica, long regarded by unhappy students as the invention of the devil, contributes a number of curiosities. Ipecacuanha is Portugese, and the latter were aware of its emetic property. Walpole knew of it—"An author talking of his own works . . . . is to me a dose of ipecacuanha." Digitalis was quaintly evolved. Digitus is a finger in Latin, and the Germans termed the corolla of the foxglove, which is thimble shaped, fingerhut. Digitalis is named in allusion to the German word. An historical fact is linked up with the naming of Cinchona. This drug is secured from Peruvian bark, and was used by the natives of Peru in its well-known therapeutic application. Linnaeus named it after the Countess of Cinchon, who was the Vice-Queen of Peru. The fine ladies (Bella Donna) of Venice, found, that sparkle, due to the reflection of light from dilated pupils, resulted from the use of a herb—hence Belladonna.

How many know that the word, assassin, owes its birth to materia medica? "Certain Moslem fanatics, in the time of the Crusades, when sent forth by their Sheikh to murder Christian leaders, would intoxicate themselves with an inebriating electuary, called Hashish, in Arabic." Addicts to this particular type of drug habit, and practising this form of amusement, were known as Hashishans. The absorption and corruption of this term into the English language as

"assassin" is just another example of the fact, that our language is like innumerable creeks, which coalescing into streams, and later into rivulets, finally merge in the shaping of the broad expanse of a big river.

There is no doubt, that Medicine abounds with words, which are often used as labels, instead of being appreciated according to the original idea of those who applied them. Could we safely pause, in the rush and bustle to our undergraduate goal, possibly we might add to our understanding and pursue our way, according to the dictum "that he who understands . . . cannot misunderstand." The word atheroma furnishes an example. We know it as a pathological entity, but what does it mean? It is the Greek for porridge, and what could simulate flakes of porridge with such faithfulness? Diphtheria (from the Greek) is another word of this type. Bretonneau was the first to regard the disease as a clinical entity from the appearance, on the pharyngeal wall. of the false membrane (Diphtherie—French—Leather).

Cyanche (Greek) and its Latin equivalent, Quinancia, literally equal "a dog to throttle." Those who have experienced the throes of a bout of quinsy will recognise the connection. Italian supplies us with "influenza," which was applied specifically to the epidemic of 1743. "Influenza is developed from the notion of Astral or occult influence," and has the sense of a visitation. To Fracastorio, an Italian poet, we are believed to be indebted, for the word Syphilis. An unhappy French shepherd, suffering either mentally or physically, is so named, in a poem written in the sixteenth century.

That much maligned animal, the sloth, has a twisted disposition of the feet. Whether humans display an atavistic feature, seen in talipes, is a matter for consideration elsewhere. Here, it will be mentioned only, that "talipes" combines the Latin talus, an ankle, and pes the foot. Those who come from country districts will be able to recognise the connection between an ear of grain and a spica, which is Latin for an ear of wheat or barley.

It is pertinent to remark that America coined "dichotomy," that is, fee splitting. The word fee itself can be traced back to fehu—(old Teutonic), peku (Aryan) and the Sanskrit pacu. From these the Latin pecus—cattle was derived. Their use in business transactions led inevitably to the development of the term pecunia—money, with which the question of fee, is now so inseparably linked.

Last, but not least, in this short survey, is the question of the origin of the word Jubilee. In the Hebraic yobel—a ram, and a ram's horn was used as a trumpet. The proclamation, by a blast of trumpets, of a year of emancipation, was a feature of the Jubilee—the year we celebrate!

Australia's Debt to Her Early Medicos

By H. NORRIE, M.B., M.S.

WITH Australia taking her place as a full member of the Council of Nations, with Australian prowess in sport, art and enterprise, with Australians holding their own against all-comers, in all parts of the world, and in almost all phases of human endeavour, we are apt to forget that less than 150 years ago there was not a single white man in the whole continent. All that we are, all that we have become in the short space of time which is but an epoch in the life of most nations, however, is largely due to the initiative, perseverance and adaptability of the early settlers in this country.

To Captain Arthur Phillip must be awarded the highest praise in this regard, for it was in his hands that the first great decision lay. Charged with the establishment of a new colony more than 10,000 miles from its homeland, with inferior equipment and with very inferior human material to work with he achieved the impossible. Sent out to a land where an insignificant population lived on food which was the antithesis of what his men were used to, he was instructed to establish a settlement at a place (Botany Bay) where there was neither a sufficient water supply nor any possibility of growing any crop. The discovery of Sydney Harbour and the exploration which followed were entirely due to Phillip's initiative; and the physical strain to which he subjected himself in those early days made a sick man of him for the rest of his life. It is not surprising, therefore, to find that wherever he went in the early exploratory trips in search of arable land, Phillip was always accompanied by one of the surgeons of the First Fleet. The safety of the people is the highest law, and in no way was the safety of the whole people of this colony in its infancy guarded better than in the preservation of the health of its first Governor.

It is, however, not so much on the medical side of their activities that the early medical men of this country come into the scope of this article, but those other activities which they found time and inclination to engage in, that has made a grateful nation debtors to their memory.

It may be a very little incident in the life of a nation to note that on the first historic journey from Parramatta to Prospect (which incidentally took five days) Surgeon White shot a crow and a few cockatoos which were "broiled over a couple of ram-rods." Yet this was probably the first poultry dinner ever served in Australia. Surgeon Arndell was with the party when the Hawkesbury River, near its junction with Cattai Creek, was explored and the tongue of

land between the two streams was granted to him at the time and has remained in the possession of the family ever since. Other names of later date have remained to mark the memory of doctors who have left their imprint on the history of the country, especially near Sydney, as good citizens, apart from their professional work. Without any attempt at chronological order may be mentioned Sir John Jamieson, who was renowned for his hospitality, especially as the genial host of Regentville, near Penrith; Dr. Ramsay, whose home was Burwood and embraced much of the surrounding district; Dr. Harris, who built Ultimo House where the Technical College now stands and whose estate comprised practically the whole of Pyrmont; Dr. Balmain, after whom the suburb of that name is called; and Dr. Redfern, who was the first graduate in Medicine to practise in Australia—the others being naval or military surgeons.

Each of these and others might form the subject of an article, but for the wonderful amount of exploratory work they did none has the claim on our attention that reposes around the names of Bass and Throsby. Although the two men were totally different in almost every respect, both temperamentally and otherwise, they had one feature in common, both were naval surgeons. One has left his name on the map for posterity to remember him as a navigator; the other has only left his influence on the life of the community; both, however, were responsible for a tremendous amount of exploratory work about which the average person knows little or nothing.

George Bass.

The name of Bass is always associated with that of Flinders and is usually used first, as though the doctor and not the navigator were the more active participant. To some extent this is true, while Australia owes her very name to Flinders—as he was the first to apply the name Australia to the continent; prior to that time it was generally referred to as New Holland—he in turn owed the inspiration and the initiative which started him on a career of exploration entirely to Bass.

The story of their association in greater matters begins with the fact that they were thrown together by Fate during the long voyage from England to Sydney when Governor King returned to Australia in 1795. Flinders was navigating officer, while Bass was ship's surgeon, and, finding soon after their departure that they both came from the same part of England, a friendship began then which lasted a lifetime and was one of those friendships which not only react on the individuals themselves, but had national, even world-wide effects, as well.

In those days the ship's surgeon even in the navy was not a fully commissioned officer on the ship's strength, but a sort of civilian officer attached for duty. In this way such

an officer had a certain latitude in the way of baggage not allowed to the ordinary naval officer, and George Bass took advantage of this concession to bring with him a boat, 9 ft. long and 5 ft. beam, which probably represents the most wonderful toy which had up to that time been brought to these shores.

The planning of voyages in this tiny craft must have been the theme of many a conversation on the journey, and much of the early information about the less known portions of Port Jackson was the result of the voyages of the first "Tom Thumb." Not content with braving the perils of Sydney Harbour in so small a craft, they must needs seek the open sea. Botany Bay had been very inefficiently charted and explored, and the strategic importance of this vulnerable spot as a point of attack was no doubt used as an argument in their application for "shore leave." No one who has been outside Sydney Heads in a small boat either in a choppy sea or pulling home in a dead calm will begrudge them the honour they deserve for taking on such a project. Cook's River and George's River were explored to the limit of navigation, and much of the neighbouring country was also explored on foot. It may come as surprise to many to know that much of the country around Bunbury Curran and between Campbelltown and the coast was first seen by these two youthful adventurers. Winter was not a good time for exploring the coast of N.S.W. in a 9 x 5 tub, so they "improved the shining hour" by building a new "Tom Thumb," and in this during the following spring they essayed the trip to Port Hacking. While Flinders was making accurate charts Bass kept the natives from interrupting by cutting an abo's hair with a large pair of scissors. They had proved the seaworthiness of the new craft on this trip so early in March, 1796, they ventured still further south, reaching what they named Martin's Isles (these were The Five Islands off Port Kembla and they named them after their companion, a youth named Martin), and the next few days were spent in exploring and charting the nearby coast together with Tom Thumb Lagoon and Lake Illawarra. A further trip up to the upper reaches of George's River was made to view the coast from the cliffs in the neighbourhood of Sublime Point or Bulli Lookout, and Bass has the honour of being the first white man to make the descent from there.

The next we hear of him is in an attempt to cross the Blue Mountains, but how far he got is not recorded. Nor was this probably the only trip inland which he attempted.

Flinders had been busy with the re-checking of their charts and the re-conditioning of the boat, and as soon as the weather permitted a further trip to the South Coast was undertaken. Bass Point, near Kiama, is a lasting

memorial to this trip. In spite of the fact that they nearly came to grief near Seven Mile Beach (Gerringong) and that their provisions ran short they got down as far as Crookhaven and, when in 1797, the survivors of the "Sydney Cove"—the "Sydney Cove" was wrecked off Ninety Mile Beach and 18 survivors attempted to walk to Sydney, but only three succeeded in braving the journey—brought back news of the discovery of coal at Coalcliff, Bass was commissioned by the Governor to investigate and report on this important new find.

The further exploits of Bass, in association with Flinders, in a more substantial craft, their complete mapping of the further South Coast, the discovery of a strait between Van Dieman's Land and the continent and their circumnavigation of Tasmania are too well known to need repetition here, so we leave Bass to pass to another outstanding medical figure in Australian history in the person of

Charles Throsby.

Like Bass, Throsby first came to this country as a naval surgeon. He arrived in 1802 as surgeon of the convict ship "Coromandel," and was appointed medical officer at Norfolk Island almost immediately. The following year he was transferred to Castle Hill, and later was appointed assistant surgeon at Sydney. In 1804, however, he was appointed to Newcastle as medical officer, and later as commandant. In those days, when land and assigned servants were to be had for the asking, it was not uncommon for military and naval officers, Government officials and others to combine farming, etc., with their other activities and this was the case with Throsby. In addition to supervising the Government activities he acquired for his own use a considerable area of land and built up what was then regarded as an enormous number of stock—six hundred head.

About this time, 1809, he decided to retire from the position at Newcastle and concentrate on his pastoral pursuits, and to this end he proposed to bring his stock down to an area he had acquired near Liverpool, but the Governor wisely deeming it inadvisable to take away such a valuable herd from the Newcastle area, induced Throsby to leave his animals there and take in exchange a similar number from the Government stock in Sydney. He was granted 1,500 acres at Upper Minto and built himself a home there which he named "Glenfield" after the family home in England.

Sitting still, however, was not Throsby's strong suit. He must be on the go always, and as a result was for ever seeking to discover what lay just beyond the limit of his last excursion. In this way he, like Bass, found his way up the upper reaches of the George's River and on to the high land beyond, overlooking the coast. Following the ridge along to the south for a greater distance than had Bass he

came to view the South Coast from somewhere near the top of Mount Keira. Although Bass can claim to be the first man to have reached the South Coast by land, it was Throsby who first found a road down to those rich pastures which have since made that portion of N.S.W. "a land flowing with milk and money."

The establishment of a home near Appin by Andrew Hume, the father of Hamilton Hume, provided Throsby with a "further out" starting point, and in Hamilton Hume he found congenial company in his desire to seek fresh fields, as also in the case of Assistant-Surveyor Meehan whose home was near his own. To what extent these three, especially Throsby and Hume, explored the area between Picton and Moss Vale can only be conjectured, for although Throsby has left some records of the wanderings there must have been many more and many exciting incidents not recorded.

Suffice to say that Bong Bong, and the area around it, so took his fancy that he applied for it as a grant and the Throsby family still occupy some of the site originally selected by their ancestor. The name Throsby Park was given by Macquarie on discovering that Throsby had not named it.

Throsby's chief exploit in the field of exploration, or perhaps those of which the most detailed records have been preserved, are those which concern the discovery of the Wollondilly River, the exploration of the country around Goulburn, the first visit of white men to the Federal Capital area and the cross-country trek between Goulburn and Bathurst. The discovery of the head waters of the Shoalhaven River and of a possible route between the tablelands and the coast at Jervis Bay are also attributable to Throsby.

In the summer of 1817-18, Throsby, together with the Humes and Assistant-Surveyor Meehan, visited the area between Sutton Forest and the Cross Roads. Hume had already been there before, about 1815, but Throsby's party pushed further west, and it was on March 17th, 1818, that they discovered what is now known as Paddy's River, it having been named St. Patrick's River by Meehan in honour of the day. Shortly after this the party divided and Throsby found his way to the Shoalhaven by following Bundanoon Creek into Kangaroo Valley. Continuing his journey, he reached the coast at Jervis Bay, and even at that early date predicted its eventual development as a port. Meehan with his party had discovered the Goulburn district and Lake Bathurst.

The following year Throsby determined to travel from Paddy's River to the town of Bathurst, and passing through where Tarago is to-day crossed the head waters of the Abercrombie River and reached the site of Oberon. From here he followed the western road of those days to near

O'Connell, and there he met Mr. Redfern and some others from Bathurst and with whom he continued his journey.

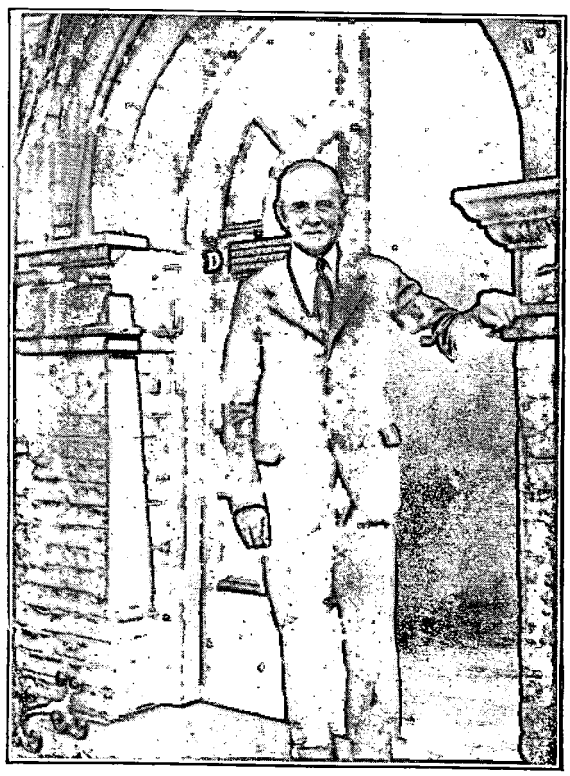
In January, 1820, he had a new road cut from Bong Bong to Dapto by way of Wingeecarribee under his personal supervision, while in the March of the same year he started off, accompanied by Hume and his faithful servant, Wild, to explore the country round Goulburn and Lake Bathurst which had been opened up the previous year by Meehan. He, however, took a somewhat different direction to Meehan and penetrated as far as Breadalbane Plains. Returning to Bong Bong, he started his men to cut a road to the Wollondilly, near Arthursleigh, and in the meantime sent Wild to investigate the story the blacks had told him about a large sheet of water south of Goulburn. Thus, on August 19th, 1820, Wild discovered Lake George. Throsby was busy exploring in the area he had already covered, and keeping in touch with the men on the road when he was attacked by the virulent epidemic of influenza which was then prevalent in N.S.W. In the midst of his own troubles he found a blacks' camp, where the whole family had been so severely affected by the disease that the treatment he was able to give them was of no avail. All died (6) except one little boy of four, whom Throsby carried on his own horse into his home at Glenfield and from there had him sent to the Native Asylum at Parramatta.

In October, 1820, he accompanied Macquarie to Lake George, and when the Governor returned to Sydney with Commissioner Bigge, who had travelled overland from Bathurst with Oxley, Throsby continued his exploration in search of the Murrumbidgee. He had been told that this large river flowed into the sea and finding it, did not consider that he had found the one the natives had described, so he made a further attempt to locate this stream the following March. It was on this expedition that he passed along the Molonglo and discovered the site of Canberra. Little did he think that here would be established the Australian College of Surgeons.

In this way he may be said to have, to some extent, paved the way for the later explorations of Oxley, Hume and Sturt, and in addition to the country he had thus discovered he made immediate plans for the investigation of the country which lay between "Lake George and Jervis Bay," through which "I think a passage can be made," as he stated in a letter to Governor Macquarie, "and I anticipate that your Excellency will think as I do that the attempt will be worth making, particularly as the track will be through a country which has not yet been visited by any person." Whether he actually completed this journey as he had planned is not certain from the records, but certainly he explored much of the area in question. Further explorations were also undertaken by him, though less by

the order of the Governor than heretofore; his other activities took up much more of his time, and financial difficulties forced him to be more at home to give personal attention to matters which in the past had run smoothly in his absence.

The last five or six years of his life were hard years for him for, weakened in health and worried over money, and, as he thought, betrayed by some of his friends, he died prematurely at the age of 51, on 2nd April, 1828, and was buried, not with the other Throsbys and their kinsfolk at Bong Bong (that was not yet built), but in the old cemetery at Liverpool, near the Church of St. Luke.



PROFESSOR J. T. WILSON,

Professor of Anatomy, Sydney University, 1890-1920; and Professor of Anatomy at Cambridge since 1920.

Snapshot taken in Sydney three years ago.

Incidents: Humorous and Dramatic

By J. COLVIN STOREY, O.B.E., M.B., Ch.M., F.R.C.S., F.R.A.C.S.

[An Address delivered to the Sydney University Medical Society on June 22, 1933.]

WHEN your secretary invited me to come and talk to you to-day, I felt most pleased to have an opportunity to come back to the Old School and to observe that the Medical student seemed to be much the same animal as he has always been.

I thought, perhaps, that I could best amuse you by telling some incidents of my own experience. They will not even have the virtue of being in correct chronological order, but they will at least be true, and many of them will have a moral of their own.

As you become older you will notice that one learns most from one's mistakes. This applies, of course, to those who have the blessing of a slight amount of commonsense. I would not like you to fall into the same errors as I have. You can learn from the other fellow's mistakes, too. But do not be too uncharitable about them. The more one sees, the more one appreciates the fallibility of human nature. To know all is to forgive all. Do not be too morose about your own mistakes, but make a mental note of them and turn them to profit in due course.

You may dub these anecdotes "The Tales of Storey" if you wish.

Two Fighting Alcoholic Gentlemen.

A certain strong and heavily built pugilist, who had been worshipping most devoutly at the shrine of Bacchus, was admitted to hospital. Nothing would satisfy him except determined attempts to climb the chandelier of the ward he occupied. I was requested to restrain him. Noticing that the bed was only about one foot in height I estimated that, if I could suddenly heave him against the frame, he was likely to fall into the bed. In those days I was rather more active, if less heavy, and, suddenly seizing the patient by the wrists, I managed to carry my purpose into effect with surprising success. But my trouble had only commenced. I jumped astride the man's chest and proceeded to claim a fall. But "Bull"—he rejoiced in this sobriquet—was very strong, although, luckily, very drunk also. For a full five minutes I had all that I could do to keep him on the bed. At last he looked up and said, "Oh, I'm drunk, or I could throw you through the b——— ceiling." My reply was, "I believe you are right, Bull!" From this moment we were the best of friends and all hostile demonstration ceased.

Another gentleman, well in his cups, one evening came into the casualty room and, without further ado, shaped up

for the first round. As quickly as possible, I announced, "You are as drunk as Chloe and I am quite sober; you could not possibly fight me." "Shake hands," at once replied my drunken friend, suiting the action to the words.

The moral is: When you are dealing with a refractory patient, it is far wiser to humour him than to fight him.

White House and Stomach Tube.

A rather anaemic-looking young man had been carried to hospital by quite a band of relatives and friends. The patient purported to be unconscious. After close examination, we decided that the young gentleman was "swinging the lead." We further decided that we would do our best to make him drop the weight. A stomach tube was secured, and the patient sat up. "Where am I," he said, and I replied "In gaol." The fellow had a sense of humour, for his next words were "Sentence of death." His stomach was duly washed out.

Now, the nurse of the ward was very intelligent and produced a large bottle of White House mixture which, as you know, is a purgative. She measured the dose with all ceremony, thus, "One ounce! Two ounces!" and to assure good measure "a dash out of the bottle for luck." The whole was poured down the tube which was then withdrawn. The patient was then, metaphorically speaking, kicked out. I am quite sure this man when he next feigned unconsciousness was careful not to return to our hospital. I remember his friends remarking that they had been unable to get anything out of him. Whereupon a rather facetious colleague pointed with much eclat to the stomach contents, most of which were on the floor, and announced, "This is what we got out of him!" The lesson to learn from this episode is that, with due discretion, the stomach tube is an excellent and safe instrument for use in such a case.

Apomorphine.

Now, apomorphine is a very powerful emetic and its use is advocated by some people in the case of Acute Alcoholism. But, it is also a very strong and dangerous depressant. It may be amusing to see a patient vomit after "sticking a pin in his gluteal region," but the fun can be rather spoilt should alarming collapse supervene. If my memory be right, the maximum dose of this drug is one-tenth part of one grain.

On one occasion an appropriate patient came under my care. I thought of Sir Alexander MacCormick's teaching, "Yes! wash out his stomach, but let the other fellow order apomorphine." I adhered to this caution. A senior colleague did not. Result—they were looking for me all round the hospital soon afterwards to treat the patient for collapse. Warning—"Wash out his stomach, but let the other chap order apomorphine."

The Wrong Victim.

During the afternoon's work of a surgeon, whose main aim in life seemed to be to do a very long list each operating day, piercing shrieks were heard from without the theatre. Going out to investigate, I found a woman being bundled willy-nilly from the lift to the anaesthetic room. I called a halt and asked for an explanation. The poor woman announced between sobs that she was not for operation at all. I went to the surgeon and told him in these words, "They have brought up the wrong victim." At first he looked angry, saying, "The wrong what?" Then, as he saw the joke, a smile lit upon his lips and I was instructed to send for the right one.

Herein are two lessons to learn. The first is to be careful not to offend your seniors. The second is that, in a big hospital, the mistake of bringing the wrong patient to operation can easily happen and, moreover, has happened before to-day.

The Shandy Man.

A man who had suffered from a perforative appendicitis with generalised peritonitis was nigh unto death. Suddenly he announced a craving for a glass of shandy-gaff. Thinking that we should grant the wish of a dying man, we procured some beer and lemonade, mixed them in correct proportions, and administered a good dose. From the moment he swallowed this "medicine" he commenced to recover and, moreover, became quite well in due course.

Moral—When a patient earnestly desires a particular food, never withhold it, unless you have grave reasons for doing so.

"The Pomonia."

Early—very early—one morning two gentlemen who had been celebrating on the previous night arrived at hospital. One was leading the other. It was a case of the blind leading the blind, but one said that the other was very ill. I was tired—very tired—and after a careful examination of the "patient" announced that he was only suffering from last night's spree. Oh, is he?" said the friend, "I thought it was the "Pomonia," but you ought to know; you're paid to know." I replied, "Yes a pound a week and my keep."

Moral—"When you are tired, hold your tongue."

The Corpse in the Cart.

In the early hours of one morning when I was tired from over-work—we used to work hard in those days—Mr. Rattigan called, in a loud voice, "Dr. Storey, come down at once." Clad only in pyjamas, I rushed downstairs to obey this peremptory order. I thought that someone was choking on the doormat. I reached the ground floor to find a corpse in an ordinary cart. The poor fellow was as dead as

Julius Caesar,—one could tell that this was so by merely looking at him. However, with due ceremony, I demanded a stethoscope and climbed into the cart. I placed the strange instrument on the man's chest and, hearing no heart sounds, pronounced life extinct. Climbing back to bed, I could not sleep. The horse kept stamping and, each time he did so, the chains of the traces rattled—it was quite eerie. My tired brain imagined that, as I had not used my own stethoscope, I may have missed the sounds of a heart that was still beating. Nothing would satisfy me but another trip down with my own instrument and another ascent into the improvised hearse to be followed by a second pronouncement of a life that had passed.

When you are over-tired, get someone else to do your work—if you can. Otherwise, do not worry unduly. I can assure you, gentlemen, that after operating on three serious cases, and reaching home in the still quiet hours of the morning, I have been aghast at the thought that they would all die. Next morning, after some rest and without seeing or hearing of the same patients again, I was just as certain that they would all get better. And recover they did.

"You Don't Seem to Know What to do For the Best."

At a village called Yebna, there came under my care a very brave New Zealand lad who had been wounded in the abdomen. He was mortally injured and knew it. While I was regarding him—apparently with concern written upon my face—the gallant boy looked up and, smiling beautifully, said, "You don't seem to know what to do for the best. By Jove, I would not like to have your job." Gentlemen, here was a boy who was giving his life for his country cheerfully and bravely, yet he was really more worried about my mental instability than about his own grave plight. The comparison of this young hero with some of the craven spirits who rise to positions of power in our land to-day causes me some degree of annoyance.

The lesson to be learned from this wonderful example of self-sacrifice is that when you are worried about a patient, you should be always careful to conceal your thoughts. Sick people are always very observant, and an air of confidence may sometimes improve the prospects of recovery.

"Sparkling Moselle."

Moselle was a young patient of about eighteen summers. In order to conjure up a smile, I always called her "Sparkling Moselle."

Her malady was a giant-size hydatid of the right lung. The whole of this side of the thorax was occupied by the cyst. The anaesthetist said that open ether would be safe. With this erroneous opinion I agreed. The patient was wheeled from the anaesthetic room into the theatre. The

extra congestion caused by the ether had been too much for the embarrassed respiration. Her colour resembled that of an ordinary bowler hat, and she was apparently dead. Seizing a scapel, I literally stabbed her through an intercostal space, and holding the ribs apart with my thumbs allowed the fluid to escape rapidly. With the aid of artificial respiration she recovered, and as far as I know is still alive and well.

This dramatic procedure was not original. Dr. Scot Skirving had told me of an instance where Dr. E. J. Jenkins had done the same thing when his patient had been drowning after exploratory puncture, which is always dangerous in cases of hydatid of the lung. Of course, I should have had the commonsense to use local anaesthetic for my patient.

"I Shall Vomit, Choke and Die."

These words remind me of a man who was stricken with diffuse peritonitis, due to perforative appendicitis. I told the patient that, in my opinion, he had appendicitis and should submit to operation. He at once announced—"I shall vomit, choke, and die." Being rather superstitious, I regarded his statement as an ill-omen. However, I replied, "That may be, but I can only give you my opinion." He said, "I suppose you know best." He was brought to the anaesthetic room and induced with ether. The skin was prepared, the towels arranged, and I had just picked up the knife, when the patient vomited, choked, and died. Fortunately for me, the Coroner's doctor found at post-mortem examination, a perforated appendix and a peritoneal cavity full of pus.

Now, my error of judgment had robbed this poor fellow of his only slender hope of life. Operation should have been deferred and, in any case, as he had been vomiting, gastric lavage should have been practised.

Heart Massage.

I have experienced only once the successful practice of heart massage. It was in the case of a patient suffering from cancer of the pyloric end of the stomach. I had just opened the abdomen when breathing ceased. Asking if a pulse were present, the reply in the affirmative came from a second doctor, who had the radial pulse under observation. But, as I had spoken, I had felt the aorta and found that its pulsation had ceased. My young friend agreed, announcing that he had only felt his own pulse. As I expressed the opinion that the patient was dead, I felt the heart through the diaphragm and observed that it was quite still. With the fingers, I gave the myocardium a firm tap and, to my joy, it kicked back at me and kept on kicking. A partial gastrectomy was then performed and the patient duly recovered.

The Farmer of Devon.

This patient was a big handsome soldier who had been wounded by a bullet which, apparently, had only traversed the abdominal wall. He was seen about six hours after injury, and all my colleagues agreed that operation was unnecessary.

Next morning, our mistake was obvious. On exploration, I found that a considerable length of the anti-mesenteric border of the small intestine had been slit open as though with a knife. There had been no signs of peritonism on the previous evening. The error was fatal, but I learned a lesson.

Years later, in Redfern, one gentleman stabbed another with a pocket knife. The victim came under notice at hospital with an insignificant wound of the abdominal wall. To the surprise of all the residents, I sent the man round to the theatre and opened the abdomen. Running the intestine through my fingers, it was not until the upper end of the jejunum had been reached that two perforations were found and over-sewn.

In all stab and bullet wounds of the abdominal wall, it is your duty to perform laparotomy and systematically to search for wounds of the hollow viscera.

Collateral Circulation Round the Scapula.

Some of you may know a nice blue-bound book called "Cunningham's Manual of Practical Anatomy." You, perhaps, have a hazy recollection of the description of an anastomosis round the scapula. I have had a sad demonstration of the practical importance of this arterial distribution. A soldier had been wounded through the axillary artery, and a serious secondary haemorrhage had taken place. I tied the third part of the subclavian and felt pleased that I had saved another life. In twelve hours the poor man bled from his wound, as though nothing had been done, and rapidly died.

Those who have had no experience of war surgery cannot appreciate secondary haemorrhage. The only sure way is to tie the wounded artery above and below its injury, and also to ligate any branch leaving the wounded section. Further, the surgical wound must be left quite unsutured. And yet it is sometimes impossible to practise this sound method and proximal ligature must be given a trial, but cannot be reliable.

I have seen and learned these things, and possibly you will not get this information in your books.

Duntroon Cadets and the Spirit of the A.I.F.

As you know, the Duntroon Cadets are now stationed at Victoria Barracks. The other day they had a practice game of football. One lad was in the act of catching the ball,

after the initial kick-off, when an opposing player tackled him hard in the left flank. The catcher collapsed, then walked across the field to find that he could not carry on, and so left the field. He was sent to hospital with a provisional diagnosis of rupture of the spleen. Lieut.-Colonel C. L. S. Macintosh had thus labelled him. I saw the young patient after a couple of hours at hospital. He was then suffering from shock and was rather blue about the lips. A history that he had been feeling unwell before the match was given.

I decided to be conservative. The lad did very well for six days, and then suddenly collapsed in the middle of the night. Having been informed by 'phone that there were definite signs of internal haemorrhage, I called at the Barracks on the way to hospital. The adjutant blew a whistle and the cadets came tumbling down the stairs in their night attire—possibly they thought that the building was on fire. Major Goodwin explained that I desired volunteers as donors of blood. Without any hesitation the whole class eagerly volunteered. Four of them were detailed and came with me to hospital, where Dr. Starr grouped them to find that only one had compatible blood. Next evening twelve others attended, and eventually there were five of the patient's comrades ready and waiting to give their blood at a moment's notice.

Naturally, it was a rather eerie business to be awakened in the middle of a cold night and invited to be bled, and the boys, although obviously nervous, were determined to see it through. To me it was a fine sight, and one that cheered me at a worrying time to see how well the spirit of the A.I.F. lives in these fine boys whose sires were in many cases soldiers of the Great War.

When I saw the young patient there was no doubt that he had internal bleeding, probably because the capsule of the spleen had suddenly given way under tension and so allowed free bleeding. Instinctively, I felt that he was safer left alone, and ordered some morphine. I am happy to say that, a month after injury, the lad is now on the high road of recovery. Colonel Maguire, the D.D.M.S., had suggested the exhibition of Coagulen Ciba, which was given. I had also the benefit of consultation with Professor Dew.

The recovery of this brave boy illustrates the fact that it is often wise to be conservative when dealing with cases of rupture of solid viscera. As the bleeding point had not been controlled, transfusion was not performed.

"You Are Going to Operate? Then it is Serious."

You may have seen reported in the press a case of wounding of the abdomen. A man was shot in the abdomen at Darlington the other night. When I arrived at hospital, the hall was full of detectives, who asked whether the con-

dition were serious. I replied that I had not yet seen the patient, but that all gunshot wounds of the abdomen were serious. They then desired to know whether dying depositions should be taken. You know that the Law takes it for granted that no man would willingly die with a lie upon his lips. Of course, the Law is wrong, but there it is.

One detective suddenly said, "You are going to operate? Then it is serious." Although the joke was on me, I was the first to laugh, and I doubt whether the officer knew what a clever remark he was making.

I am glad to say that the seriousness was overestimated by the police, as the patient is now quite well.

Depth of Anaesthesia.

There is a wave of interest in anaesthesia at present, and various people are writing papers on the subject. Some of them point out that the anaesthetic is the business of the anaesthetist. This, of course, is a statement of fact, but you should be always glad of a hint from an honest surgeon.

I cannot personally vouch for this incident, but it was told by a reliable senior colleague. A certain anaesthetist was taking a long time to induce anaesthesia for the operation of haemarrhoidectomy. The surgeon was patient enough, but was repeatedly refused permission to commence. At the end of an hour he was informed that the man was under "full surgical anaesthesia." Whereupon the operator proceeded to stretch the sphincter ani muscle. From the patient came, "Oo-oo-oh! Can any of you blokes tell me where the lavatory is?"

On another occasion a friend was giving chloroform for Sir Alexander MacCormick to remove a growth from the face. I was assisting. The surgeon said, "Go on, doctor, give her some more; she will be talking to you presently." The young doctor was unwise enough to say, "I do not wish to have an interview with the Coroner." The surgeon ignored the remark, but spoke in Mrs. Brown's ear, "How are you to-day, Mrs. Brown," and Mrs. Brown answered him!

Testing the Urine.

Many moons ago there came to Prince Alfred Hospital a young woman with frank signs of acute appendicitis. I removed a gangrenous appendix. Next day, in Hunter Street, I met the doctor who had sent the patient to hospital.

I thrust out my chest and announced, "Your patient had a very bad appendix." "Oh, yes," said my colleague, "that girl has diabetes, too." "That is news to me," was my reply.

It was not very long before the Resident rang me to say that the patient was going into coma. He was instructed to hustle with the insulin. The girl recovered, but would have

died of diabetic coma had not Providence arranged my meeting of her doctor, simply because we had failed to test the urine.

One day, when Sir Alexander MacCormick was excising a small wart under local anaesthesia, I queried the need of testing the urine. He replied that as a young man he had removed a similar trivial growth and the patient had died of uraemia and the people had wrongly blamed the operation.

Warning—The urine must always be tested.

Failure of Lights.

Whilst working in a tent theatre one time, I had a man's arm half amputated, when someone trod on the tubing of the gas lamp and I had simply to control bleeding till light was restored.

Another time I had just opened the abdomen for acute cholecystitis, when all the electric lights failed.

All theatres should be provided with an emergency lighting system, and such temporary arrangements should be regularly tested.

If you get caught, all that can be done is to hold a sponge on the field till light is provided, or, of course, hold the main artery of an injured limb.

"Hit by a Bullet that Missed Me."

A young soldier, as pale as a ghost, halted at my aid-post on the Peninsula. I said, "What is the matter with you, lad? You are looking very pale to-day." "Yes, Sir," he replied, "I have just been hit by a bullet that missed me."

His paradoxical statement was literally true. He showed a wound of entry and of exit in his hat and a groove along the side of his head, where the missile had torn out a track of hair without drawing blood. Of course, he had heard the crack and felt the sting, and imagined that he had been wounded through the brain.

This case illustrates the importance of the psychic aspect of immediate shock. No patient should be submitted to operation till he has recovered from the initial shock.

The Mistake of not Looking.

One day, the ambulance brought in three men. The first seen was stone dead. The second was lashed to timber from the crown of his head to the soles of his feet. The ambulance officer said, "I have not diagarnosed (sic) this one yet." As the first man had made such an impression, I sent the second straight round to the ward, only to find, when his body had been freed, that there was nothing wrong at all.

Only yesterday, I was asked to give an opinion about a

lady's arm. She was reported to have fractured the fore-arm. She was sixty-three years of age, but seemed shy about removing her blouse. Luckily, I insisted, to find that she had an ankylosed shoulder joint and an old osteo-myelitis of the whole of the humerus.

Gentlemen, "there are more mistakes made through not looking than through not knowing."

Dr. Archie Aspinall told me of an experience he had when he was a resident. A woman had been brought in after an accident and the ambulance had reported "Amputation of two toes." The doctor said, "It is late now and you had better stay for the night." The woman said, "Oh, I am bleeding," whereupon her skirt was elevated, and it was found that the thigh was almost severed, too. Dr. Aspinall told me that it had almost made him ill to think of the mistake he could have made.

Phar Lap.

No doubt, you all know the famous racehorse, Phar Lap. A big, useless fellow was admitted to hospital, to be seen at the end of the day's rounds. He had been in an accident about a month previously. He was a railway worker, and had been for some weeks in a country hospital with paralysis of both legs and anaesthesia from the level of the umbilicus. I admit that, on hurried examination, I thought, perhaps, that he was genuine, but sensed that he was not for operation and asked that my opposite number physician should see him. Talking to Dr. S. A. Smith next day, I asked what he thought. "He is functional," replied the Doctor. "Then we shall get him up," said I. Ringing the six-foot house surgeon (Dr. Julius), I instructed him to get the patient out of bed. "I have done so, sir," was his reply. When next I saw the man I made him "do his paces" up and down the verandah. On next visiting day I missed the patient and inquired of the Sister. "Oh, sir," she said, "the men in the ward called him Phar Lap and he got angry and left hospital." I believe he is still running.

The Man in the Gas Stove.

A neighbour came to my residence early one morning and asked, as a matter of urgency, that I come to his help. I went, to find that a boarder had slashed his own wife's face. The man who had summoned me suddenly turned and ran towards the back of the house. Scenting trouble, I went after him to find the culprit with his head on the lower shelf of the stove with the bacon and eggs on the top. He was wearing a short shirt, by the tail of which he was dragged from the range.

Uraemia.

Another morning a little girl said that her sister had taken a fit. Remarking that probably it was only hysteria,

I was advised to go at once, as the girl might be very ill. When I reached the room respiration was just ceasing. With the aid of two or three colleagues we kept the girl alive till afternoon by means of artificial respiration.

One of my friends wanted to give a certificate to help the distressed parents, but I strongly protested. It was found that the patient had been in hospital with nephritis and the Coroner was so informed. This official was able to give a certificate for burial.

Never give a death certificate when you have seen the patient for the first time just before the end, nor until you know that he is really dead.

Cyanide Poisoning.

One afternoon, on returning from tennis, I was asked, by telephone, to go to the house of Mrs. So-and-so. I replied that they had better summon a local practitioner. "But," was the reply, "this is a case of life and death; she has taken cyanide." Seizing a stomach tube, I ran to the house, to find the good lady on the mat. "I thought that you had committed suicide," was my greeting. The reply was, "No, I have not time."

Going into the house, I found a young man who had some crystals in a blue bottle. The contents purported to be "cyanide," and his friends said that he had swallowed some. I made preparations to wash out his stomach, but the friends became alarmed and would not help. I thought he should have already been dead, and decided to leave. However, on second thoughts I rang up the police. The sergeant, who had known me since I was a lad, came at once with another officer.

"What is the matter?" he asked. I told him that the man was reported to have swallowed cyanide and would not have his stomach washed out. "Oh, yes he will," said the sergeant, and he did.

Now you must leave for your classes. Remember that you will belong **to a profession that is only just as noble as each one of you makes it.** Always determine to keep the interests of your patient uppermost; you will then have done your best and no man can do more.

MISTAKES.

When a plumber makes a mistake he charges twice for it.

When a lawyer makes a mistake it is just what he wanted, because he has a chance to try the case all over again.

When a Judge makes a mistake it becomes the law of the land.

When an electrician makes a mistake, he blames it on the induction; nobody knows what that means.

When a doctor makes a mistake he buries it.

ALPINE PEAKS, OF WHICH MONT BLANC, 15,782 FEET, IS THE HIGHEST.

Scaling the Academic Mont Blanc

By KEMPSON MADDOX, M.D., Ch.M., M.R.C.P.
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Mont Blanc, the culminating peak in the range bearing the same name, is the highest mountain in the entire chain of the Alps. The range is unequally divided among France, Italy, and Switzerland, while Mont Blanc itself rises to a height of 15,782 feet. In former days the mountain was called in some places Montagne Maudite, or simply, Les Glacieres; but the present name appears to have been always in local use. The name Mont Blanc occurs in an Italian document of the year 1694. Among the best known glaciers are those of Bossons and Tacaunaz on the northern slope, and those of Brenva and Miage on the southern slope. The first ascent was made in 1786 by two Chamonix men, Jacques Balmat and Dr. Michel Paccard. The first Englishman to attain the summit was Colonel Beaufoy. These ascents were all made from Chamonix, which is the usual starting place, though in the course of time ascents have been made from almost every side. The easiest way is by the inn of the Grands Moulets to the Bosses du Dromadaire shelter hut, and thence to the summit. The view from the summit is naturally very extensive, Lyons being visible. The inn of the Grands Moulets stands at a height of 9,909 feet. The shelter hut at the Bosses du Dromadaire was built in 1890 by M. Vallot at a height of 14,312 feet, whilst in 1893 an observatory was built just below the summit by T. J. C. Jannsen.

THE geological summit of Mont Blanc was reached considerably before its academic homologue was conquered for the first time at Sydney University, although they both still hold considerable difficulties and stiff climbs for the aspirants concerned. The pinnacle of the Jungfrau can now almost be reached by a funicular railway, while that of Everest remains aloof. The Sydney medical course is neither so easy as the one nor so inaccessible as the other, but nevertheless requires the same preparation, fortitude and individual effort as does any Swiss peak, annually attained by a fresh company of earnest mountaineers. The route up the curricular mountain has changed somewhat of late years, but good guides are even more plentiful; and, while already the path is becoming more worn and slightly smoother, there are still many steep rock-faces and narrow chimneys to be negotiated. If the ascent is to be completed in fair weather, free from anxiety and exposure, there is little time for anything but the business of the climb. While pauses for recuperation are essential, they should be made at the proper halting places and little time spent in snowballing or sight-seeing while actually on route.

In other words, the medical student's job is to get through his course in the allotted time. Six years is a rather large slice of the cake of youth, and in these competitive days one can ill afford to prolong this period to seven or eight summers, quite apart from the additional burden thrown on the financial sponsor concerned. The

early years of the present course have been carefully arranged so as to provide just sufficient serious work for each 12 months; and, while this amount increases somewhat in the later years, the additional interest makes the task proportionately lighter. The broadening tide of professional knowledge is already becoming irresistibly stronger and faster, so that it has become almost impossible to add any more to the formidable volume which any student can reasonably assimilate in six years. All that can ever be accomplished from now on is to build the foundations of medical knowledge deeply and broadly during the student curriculum, and then leave it to the individual, as to how he designs and constructs the consequent edifice. This conception is of fundamental importance, not only to the student, but to the teacher of a medical specialty.

While it is theoretically true that the final year student of to-day should know as much as the former hospital house doctor at the end of the latter's first year of residence, since they have both been engaged for a similar period in learning their profession, such is not actually the case. Though a student may share a resident medical officer's duties with him to a large extent, his efforts are dissipated over many subjects at once and on revisionary work. As a consequence, he misses the tremendous stimulus to memory and reason provided by the actual responsibility for sick patients. The same principle must be applied by the best medical school of the future, as that which governed teaching in Harvey's day, namely, a solid groundwork in anatomy, physiology, pathology, obstetrics, clinical medicine and clinical surgery. The remaining subjects such as biochemistry, gynaecology, ophthalmology, psychiatry, et cetera, will have to be introduced and taught as regards their fundamentals only, and their place in general medicine and surgery; that is, they must be taught rather from the first-aid point of view, such as is required in general practice in a city or large country town, where appropriate consultants are readily available. If a doctor decides to practice in a locality where such assistance is not to be obtained, he must deliberately undertake post-graduate study in all such branches as he elects to practice.

Preparations For The Climb.

But we appear to be missing the preparations for our climb. The day seems always bright and clear at this stage, and so it always should be, as there is no need to worry about the steep pinches until the appropriate moment arrives. But no climbing expedition ever leaves without the correct equipment, which has been designed for safety and convenience on the journey. For this particular peak, with its great variety of difficult corners, a varied outfit is necessary. But in place of ice-axes and strong rope, we would

suggest a thorough knowledge of English and history, a moderate appreciation of mathematics, physics and chemistry, and a working acquaintance with Latin, French and German. Indeed, it is most probable that the medical matriculation will be altered towards this direction, and the sooner the better, since mountain climbing allows of no useless weight to be carried. The party sets out with beaming relatives looking on, and is soon well up the first incline. This is relatively easy, and few stragglers show themselves. The first year of Medicine, quite rightly, provides sufficient leisure for the student to orientate himself to his new life, become acquainted with his travelling companions and participate in certain University activities. He will be wise who pays attention to his lectures from the commencement day, takes full and connected notes, and so develops habits which will be invaluable when he eventually comes to put a patient's history on paper. The atmosphere of the lecture room is very different from that of the school room, and all are tempted to take advantage of its greater liberties, to allow their attention to be wholly or partly directed away from the lecturer's words. If, however, sufficient attention is paid to the details of the lecture and the notes are read over that night, I consider it is sufficient for the first two terms, at least, to work only three nights in each week and to devote the remaining time to gymnastic, dramatic or social entertainment. Undoubtedly the golden rule for this period is bed before eleven on Sunday to Friday nights inclusive, during term. This may seem highly paternal advice, but is intended rather to be fraternal, and for men between the ages of seventeen and twenty, it is good physiology.

Sporting and Other Activities.

No University can justifiably expect her sporting reputation to be mainly upheld by her medical students. The fact that a large number of our best "blues" and athletes have won their honours during a medical course is the result of individual sacrifice—in many instances accompanied by "posts" or even missed years. Every medical student should consider it his duty, to his own health as well as to his Alma Mater, to play some sport during the first half of his course. There are abundant vacancies in almost every sport worth playing, and the programme generally provides at least one free afternoon every week, or a couple of days when classes finish early. College men, of course, have unusual opportunities and encouragement in this direction; but where there's a will there's a way to find opportunities for games. After the first three years are over the late afternoon hospital rounds interfere more and more with recreative opportunities, especially for the student living in a distant suburb. Finally, many a student refrains from joining the Sports Union because he was "never any good

at sport," forgetful of the wider choice of games than he had at school, and quite unconscious of his ability to play them. Frequently it is the "trier" in a sport who is more appreciated than the complacent "all-rounder."

The further facets of University life are less important and, as far as office-bearing at least is concerned, are better left to students of faculties which allow of more time between lectures. Debating and public speaking are a most valuable training for the medical and other meetings of later life, while contributions to the students' journal provide excellent practice in the composition of scientific articles. The question of additional work and minor research, with few exceptions, can be left to those who are fortunate enough to be able to spend an additional year in pursuit of a science degree. There can be no question that an extension of time for this purpose is an exceedingly profitable investment. Coaching should not be necessary for any consistent worker at this stage of the course. Mastery of the elements of organic and physiological chemistry will repay the worker handsomely in his clinical years. There is, too, a tendency to forget one's physiology as rapidly as possible when the hospital period commences, and to feel almost irritated at the constant reference to its application in lectures on medicine.

Examinations.

The most exacting and dangerous moments in the ascent of our Mont Blanc are the annual examinations, and a word or two concerning the technique of climbing at these times will not be out of place. The late Sir T. P. Anderson Stuart, as I remember him, stated the golden rules to be as follows: Meticulous reading and re-reading of the question; the allotment of an equal period to the answering of each question; the construction of a synopsis of each complete answer before ever writing any sentence in full; and a neat, logical and orderly arrangement of the subject. In answering a question requiring a group of headings, it is the rule rather than the exception to find that a student will begin with the least important. This applies particularly to viva voce examinations and frequently creates an erroneous impression in the mind of the examiner, as to the relative regard paid by the student to the details of his answer. The dreaded viva has earned its evil reputation quite unjustly as, against the additional nervous factor, there is a much greater opportunity than in a written examination of proving one's knowledge to the examiner. Many students have themselves to blame in that, wishing to impress, they mention an abstruse feature of the answer about which they know little more than the name, and thus give an examiner, himself weary of hackneyed questions, a welcome opportunity to divert his attention to a more difficult sphere.

We are now more than half-way to the summit. The latter half of the journey is unquestionably more exacting than the first, but then fresh vistas reward the toiler at almost every step. The first few hundred yards of this part of the climb are apt to cause more fatigue and difficulty in consequence of the steeper grade, but such discomfort can be greatly alleviated by slow and careful marching, and by the choice of sure footholds. At this point there are several parallel routes which may be followed and which unite again at the summit itself. The choice of a clinical school and hospital is the first independent decision the student must make which can potentially change the whole course of his career. The factors to be weighed at this time are one's own relative receptiveness in a large or a small class, the proximity to one's residence, and the decision of one's student friends. The last usually weighs the heaviest. The professorial teaching, research facilities, traditional and larger display of clinical material must always direct the majority to the University Hospital, beside the new Medical School.

The Higher Grades.

With the first step inside the hospital itself, the real business of the climb begins and habits begin to form which usually persist throughout life. The time has now come to bring to the front all the human sympathy and forethought with which one is endowed, and to realize that the work from now on is concerned with human beings as ourselves and not the inanimate objects or zoological specimens of earlier years. At the same time one must consider one's relations and manner towards doctors and nurses almost as much as towards patients. Such apparently small details as a meticulous attention to cleanliness of hands and coat, a definite and interested attitude during bedside clinics, are immediately remarked by one's tutors and chiefs. Little attentions and minor details of good manners, such as even keeping one's hands from one's pockets, make it much more pleasurable for the teacher, who in consequence gives of his very best. The large lecture note book is put away at the bedside, and a memory training begins which must be assiduously cultivated and practised, as in later life it becomes a gift of rare price. There are three golden rules for the hospital period: To see everything, to remember everything, and to read up the day's work the same night. Much must be left to the individual climber, and it is here that the really energetic are amply repaid for their additional labour. The hospital course cannot be arranged to cover the subject completely, as has been managed in the earlier years. While a great deal of trouble is taken to illustrate every medical and surgical condition at lectures, this is entirely dependent on the clinical material available at the moment. In particular, urgent medicine and surgery

take place at odd hours, frequently during the night. Consequently, it behoves every learner to make an effort to see these cases when and as they arrive during working hours. It is just this aspect of one's later work which is the most worrying and which calls for quick and accurate decision. Regarding residence in outside hospitals during the student period—while it gives a better opportunity of watching emergency work, it is as a rule inadvisable to miss any professorial or routine teaching in the regular hospitals, as they may not be duplicated and there is no time for catching up.

The procession of climbers moves on inexorably. Regular attendance for dressings, at post-mortems and at tutorials are of paramount importance—especially at post-mortems. It is impossible to learn the art of anaesthesia in six or even in twenty-six administrations, so this must be left till later. The lessons of the dead house, however, cannot be acquired by many after graduation, so everyone should make it a point of high honour to attend on every possible occasion during his student days. The depth of a student's interest can be judged by the quality and the quantity of the questions he asks. There are plenty of people in a large hospital to answer them and the constructive thinking implied is of immense value. A further great necessity is this: Even though in the modified curriculum every attempt is made to correlate the two great sciences of medicine and surgery, and their components the specialties, into one composite whole, there is no doubt that most students tend to consider them in separate divisions. Nature as reflected in physiology and pathology does not so separate them, however, and this integration, i.e., the consideration of the diseased organism in its entirety, and of medicine and surgery merely as supplementary modes of treatment, rather than as antagonistic viewpoints, is a vital duty of every student as regards his own outlook. The best disciples of Hippocrates are those with the widest vision, and such an orientation is as essential to prevent one losing one's way on this Mont Blanc as on the actual range itself.

The Summit.

A final word to the climbers who are on the last steep ridge, the men and women of Medicine VI.: You have done well and all deserve the joys of the conquerors of mountains, but the narrow ledge on which you now find yourselves calls for all your attention. Nevertheless, you have a duty to your younger companions which is in keeping with the unwritten and inviolate law of the Alps. You are roped to them by the same stout cord of common interests and a mutual Alma Mater and nationhood. Give them a hand up the steep and slippery places when they first enter hospital. Tell them of the tradition and reputation of the institu-

tion which is to be their medical nursery. Teach them not to waste time, to act as true gentlemen, and assist them to find their feet during the first few difficult weeks of the hospital course. Only in this way will all safely reach the summit in a continuous procession unhampered by the necessity of carrying or waiting for, the ill-prepared or inefficient climber. For yourselves, you must make this the hardest year's work of your life so far. Coaching will help, as it permits the wood to be seen through the trees. Consistency of effort tempered by commonsense in the choice spells is the watchword which has overcome many mountains. No matter how tall and foreboding they appear from the foothills, the supreme joy of the victory and the fascinating and ennobling life which follow are worth it a dozen times over.

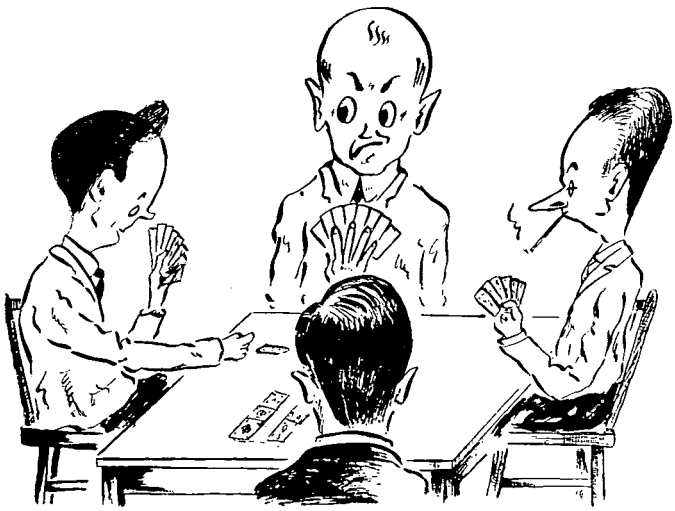
Doctor: "Did you take my advice and sleep with all the windows open?"

Patient: "I did, doctor."

M.D.: "And now, I suppose, you're going to tell me you've lost that cold."

Victim: "No, Doc., only my best suit and my watch."

"WHILE WE WERE PASSING THROUGH MEDICINE."



No. 5.—Assiduously studies Medicine in his spare time.

Thomas Jamison, M.D., R.N.

SURGEON IN THE FIRST FLEET.

By JOHN MacPHERSON, M.A., M.B., Ch.M., B.Sc..
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THE date of Thomas Jamison's birth is not clear. It has been given as 1760, which cannot be correct if his son John was born, as stated, in 1776. Possibly the latter date is erroneous. Thomas joined the Medical Department of the Royal Navy as a young man in 1780, and remained a naval surgeon till 1788. He graduated from Trinity College, Dublin. He was appointed Surgeon's First Mate, under Surgeon George Bouchel Worgan, on H.M.S. Sirius, in 1786. The Sirius was Flag-Ship in Phillip's First Fleet to Australia, arriving in New South Wales in January, 1788. The Sirius was totally wrecked at Norfolk Island in 1790. Jamison became Assistant Surgeon in New South Wales in 1798. William Balmain, who was then Principal Surgeon, left Sydney for England, on leave, in 1801, and died there in 1803. It is stated that James Thompson, First Surgeon's Assistant, was deputed to carry on Balmain's duties in his absence in 1801, but apparently the duty devolved on Jamison, who acted as Principal Surgeon (often spoken of as Surgeon-General) from 1801 or 1802 till 1809, being definitely appointed to the office of Principal Surgeon in 1803 or 1805. In 1802 Jamison was made one of the chief magistrates of the Colony, with four convict servants assigned to him in lieu of payment. On January 27th, 1808, he was appointed Naval Officer at Sydney. Jamison attained the fullest distinction open to him in the Colony. He was an excellent colonist and worthy citizen, but his path did not lie in pleasant places and he was constantly involved in troublesome happenings. However, he left considerable property to his son. He, Balmain and Thomas Arndell were the only medical men of the First Fleet to remain and take part in founding the City of Sydney and the Colony of New South Wales.

On February 13th, 1788, Jamison went with Lieutenant P. G. King to Norfolk Island to form a settlement there. He acted as Surgeon's First Mate there from March, 1788, to February, 1791. On March 4th of that year he was recommended for a commission as Assistant Surgeon with a gratuity to cover the three years he had acted in that capacity. This was confirmed in 1793, but he only received £40 per annum instead of £91/5/- per annum owing to confusion of his name with a Jamieson who was Superintendent of convicts. Jamison was very badly treated in the matter. In 1793 Jamison accompanied Lieutenant King to New Zealand. Altogether Jamison was ten years at Norfolk Island (including the New Zealand trip). In 1798 he returned to

Sydney under general orders and acted as Assistant Surgeon in New South Wales. In May, 1798, he was replaced at Norfolk Island by Dr. D'Arcy Wentworth.

Sir Henry Browne Hayes.

Soon after returning to New South Wales Jamison obtained leave of absence and re-visited England. He returned to Australia on the transport "Atlas," which was under Captain Brooks. Although a servant of the Crown, he travelled as a passenger, being still on leave. This was in 1801. The "Atlas" was a convict ship and on it was Sir Henry Browne Hayes, Bart., who had been convicted and sentenced to death for abducting a Quaker heiress. His sentence was commuted to transportation to New South Wales. Hayes was the founder of Vaucluse House, subsequently occupied by W. C. Wentworth and now well known for its historical associations. The "Atlas" left in November and arrived at Sydney on July 6th, 1802. Hayes was a wealthy man, although a convict, and, by paying Captain Brooks 300 or 400 guineas, he was treated as a privileged passenger. Hayes was a turbulent and truculent personage, ever looking for trouble. He needed discipline and correction and got both. Unfortunately for himself he fell foul of Jamison and a dispute occurred between Jamison and Hayes and the captain. A violent quarrel ensued and Jamison, seething with indignation, left the ship at Rio de Janeiro. Jamison's statement of the happenings is as follows:—

> A prisoner on board and from whom the captain had extorted 300 or 400 guineas was the only person who had any pre-eminence with Captain Brooks. This person messed with him, enjoyed a part of the round table, and the cabin allotted to the other passengers was, in part, stored with his luggage. The striking contrast in Captain Brooks' conduct in relation to the prisoner alluded to above and his deportment towards me was so singular and unprecedented that I cannot pass it over unnoticed. My bedplace was rather on a contracted scale and underneath were stored four casks of sugar which were usually required on deck twice a week. My cases were as constantly cast loose and in danger of being broken to pieces.

Here we have the plain dignified statement of an aggrieved party, in marked contrast with the venomous vituperation and scurrilous diatribe of the baronet convict.

Jamison, after arriving in Sydney, proceeded against Hayes in the Court of Justice for assault and against Captain Richard Brooks for assault and on account of "having suffered considerably for his property being damaged." The Court refused to try the master of the "Atlas" for assault as he was not within its jurisdiction. However, the Civil Court gave a verdict against him for £100 and costs on account of the goods damaged, by reason of improper stowage and also for the expense to which Jamison was put through having to leave the "Atlas" in Rio de Janeiro and pay for

the rest of his passage to Port Jackson on the "Hercules." As regards Hayes, who presumed on his wealth and title without avail, the Court decided that for a convict to be guilty of "laying hands on an officer" was a very serious offence, and Hayes was sentenced in Sydney to six months' hard labour in the common gaol. As W. E. Bethel has written—"The apparently insignificant man on board the "Atlas," a Crown Colony officer, unostentatiously on leave, was transformed in Sydney, having resumed duty, into an official of high degree. The fracas on board the ship assumed the proportions of a most heinous offence."

Hayes penned the following vindictive and amazing epistle to Lord Hobart on May 6th, 1803, without, however, tarnishing Jamison's reputation:—

In order to secure to myself a respectful treatment and decent accommodation on board, I had paid a considerable sum to Captain Brooks, the commander of the ship. The Transport Board had also by letter ordered Captain Brooks to receive on board his ship a man named Jamison. Would your Lordship wish to know him? In figure he resembles a Hackney chairman, in behaviour a clown, illiterate beyond measure, stupid when sober, and, when drunk, outrageous. While we lay at Rio this man, in one of his drunken fits, quarrelled with Captain Brooks and they actually fought on the quarter-deck. Compassion for a moment superseding contempt, engaged me to join the company in separating them. Our kindness procured us all, and me in particular, a volley of abuse in terms not calculated to escape notice. On shore next day, when the fumes of his liquor were dissipated, I requested an apology and obtained satisfaction. The steps I then took were those universally approved of. He went on board another ship and I forgot him. On my coming here I found him, by a previous arrival, installed in the offices of Acting Chief Surgeon and Magistrate. God help the laws. In no instance can the proverb "Noscitur a Sociis" be better verified than in this. General contempt and universal hatred had left Governor King with only one single adherent—Mr. Harris, the military surgeon. (Here follows another scurrilous invective against Dr. John Harris.) A triumvirate was formed and in return for his confidence they gave him theirs. Hence I was detained on board. . . . Hence they deliberated whether flogging, hard labour, or Norfolk Island (the Black Hole of Botany Bay) should be my portion; and most certainly I had fallen a victim to their villainy had not caution, my friend for this once only, stepped in. They, therefore, gave me a kind of mock trial for insulting in the Brazils this colonial surgeon. The sentence passed on me was six months' imprisonment in the common gaol. . . . My illness, however, made them fear I might escape their hands by death. They therefore, after numberless wrongs, insults, scoffs, and threats, liberated me at the end of five months, but as an additional inconvenience sent me to Parramatta under the penalty of transportation to Norfolk Island if I ventured down to Sydney. . . . To your Lordship's wisdom, protection, and humanity I recommend myself and this Colony —a Colony now nearly reduced to the verge of destruction and of too great political consequence to be suffered to remain in such hands as those of Captain King and Messrs. Harris and Jamison, surgeons.

Hayes certainly deserved all he got, but that did not prevent him from calling on the Deputy Judge Advocate to "protect him from all unlawful violence and shield him," declaring that his life was in danger from the joint pique

of Governor King and his friend Surgeon Jamison. Governor King, of course, is the same person who went to Norfolk Island as Lieutenant in 1788. Even now the trouble with Hayes was not ended. In July, 1805, there was held a meeting of Governor King and the magistrates of County Cumberland, including the Rev. Samuel Marsden and Surgeons Jamison and John Harris. At this meeting a document was presented to the magistrates by King, reading thus:—

> As no one of them is ignorant of the suspicious and, in many cases, dangerous characters of Robinson, Hayes, and Margarot, to the peace and tranquility of the Colony, it is deemed advisable to require their joint and separate opinions as to the necessary steps to be taken with these convicts by removing or separating such improper characters.

Hayes was sent to Norfolk Island. Incidentally, Margarot was one of the "Scottish Martyrs," and Robinson was the convict poet—a blackmailer and forger.

In the midst of all this turmoil Jamison found time to contribute for public information an article on "Small Pox," which was published in "The Sydney Gazette" on Sunday, October 14th, 1804. Jamison was one of the early Sydney landholders. At the head of Sydney Cove, allotment No. 1, of about two acres, fronting George Street, Bridge Street and Sydney Cove was granted on October 8th, 1799, to Lieutenant William Kent, who erected a brick house thereon. In 1800 Governor King purchased this land from Kent and built an orphan school, which crossed the later Queen's Place (now Dalley Street). On May 1st, 1804, it was again granted to Surgeons Jamison and John Harris, the Rev. Samuel Marsden and others. The grant was later surrendered. On September 30th, 1805, allotment No. 10, from George Street to the low-water mark of Sydney Cove was leased to Jamison for fourteen years, but was subsequently granted to the well-known ex-convict, Mary Reibey. On December 18th, 1805, grant No. 38, of 1,000 acres, on the lower Nepean River, near Penrith, was given to Jamison by Governor King. Here later Regentville was erected.

As Dr. Frederick Watson points out, towards the end of Governor King's regime (1800-1806), the free population had greatly increased in numbers and comprised free settlers, emancipists and convicts who had served their sentences. It had always been a doubtful point whether it was incumbent on the Medical Staff to attend obstetric cases or ailing settlers or other freemen who were not victualled by the Crown. A crisis occurred when Assistant Surgeon James Mileham was tried by court-martial and severely reprimanded for refusing to attend a woman in labour in the General Hospital. Jamison instigated the court-martial. Shortly afterwards Assistant-Surgeon John Savage was court-martialled for neglecting to attend the wife of a settler in labour in heartless circumstances. The woman died and the doctor was cashiered, but the sentence was not

confirmed by the Home authorities. As a result of this affair the Medical Staff was subsequently permitted to engage in private practice. In 1808 William Redfern, who was an emancipated convict, was examined and obtained the first medical diploma issued in Australia in the following terms:—

> We whose names are hereunto subscribed do hereby testify that we have examined Mr. William Redfern touching his skill in Medicine, Surgery, and other necessary collateral branches of Medical literature and we find him qualified to exercise the profession of a surgeon, etc., and consequently to fill the situation of an Assistant Surgeon in any Department of his Majesty's Services.
>
> Given under our hands at Sydney, in New South Wales, the first day of September, 1808.
>
> (Signed) Thomas Jamison, Principal Surgeon.
>
> J. Harris, Surgeon of New South Wales Corps.
>
> William Bohan, Assistant Surgeon of New South Wales Corps.

It is rather difficult to understand why this examination was necessary, as Redfern was Assistant Surgeon in the Navy at the time of his trial, which was for taking a small part in the mutiny at the Nore.

The Bligh Rebellion.

Bligh followed King as Governor in 1806, and during his regime the Hospital rapidly (as Dr. Frederick Watson points out) fell into disrepair. It is certainly difficult to fathom Bligh's hostility to the medical establishment which provoked Jamison's animosity against his administration. In October, 1807, Jamison wrote to the Home authorities asking permission to retire if Bligh's Government continued. A staff of convicts had been engaged in hospital duties and had gained proficiency in their work. Bligh ordered them to be employed in promiscuous public labour and, despite the repeated representations of the Government surgeons, refused to permit them to return to their hospital duties. With Bligh's approval Dr. D'Arcy Wentworth was court-martialled and publicly reprimanded for disobeying Captain Abbott's order concerning the re-admission of two of these convicts without Government authority. Wentworth was suspended by Bligh for the alleged misuse of public labour in hospitals (F. Watson).

Bligh considered Jamison to be "not an upright man, inimical to the Government and connected in improper transactions." He dismissed Jamison from his office as magistrate, and had he been able to fill his place as Principal Surgeon, he would have dispensed with his services in that regard also. But with Wentworth's suspension there was only one other surgeon (Mileham) in commission in the Colony. Jamison had not been able to induce surgeons from the transports then in port to join the Medical Staff, as the pay of juniors was so poor and the Medical Service was held in such bad repute. Bligh disorganised and antagonised

the Medical Establishment, and both Jamison and Mileham unwisely signed their names to a letter to Major George Johnston requesting him to depose Bligh, before the actual arrest on January 26th, 1808. Afterwards Jamison, Mileham and Wentworth suffered anxiety as to the consequences of their share in the deposition.

In 1809 Jamison accompanied Johnston (now Lieutenant-Colonel) and MacArthur on their way to England as witness in representing their case against Bligh at Johnston's court-martial. Surgeon Harris was also with them. Jamison and Harris were still at Rio de Janeiro when Macquarie arrived on his way to assume the Governorship at Sydney. Macquarie and his wife, after speaking with them on the matter, formed the opinion that the case of the rebels was a poor one even on their own showing. Macquarie arrived at the end of December, 1809, and took Office in 1810. He appointed D'Arcy Wentworth, who had been acting as such in 1809, Acting Principal Surgeon in the absence of Jamison who had been ordered to England. Wentworth succeeded to the permanent position in May, 1811, after Jamison's death, on the recommendation of Earl Fitz William to the Earl of Oxford, made on January 31st, 1811. Wentworth petitioned for an allowance from February, 1809, as the duty devolved on him as Senior Assistant Surgeon to act as Principal Surgeon till Jamison's decease.

Jamison did not return to New South Wales. He died in England (not, as has been stated, at Regentville) on January 25th (or 27th), 1811. His widow was granted a pension from January 27th. The Estimates for the year 1814 show an allowance for Mrs. Jamison of £40. On April 6th, 1811, John MacArthur, still in England on the Bligh matter, wrote to his wife:—"Poor old Jamison died last winter. He had never been in health from the time of his arrival in England." In 1814 his eldest (? or only) son, Sir John Jamison, arrived in Sydney and took over his father's grant of 1,000 acres, near Penrith Racecourse. To this he added 1,500 acres of his own and built the fine old manor on Regentville, in 1824. Sir John Jamison was a surgeon himself, and also an enthusiastic zoologist and botanist. He contributed an important article on "The Platypus and Its Poison-Inflicting Spur." He was the founder of the Royal Agricultural Society and was one of the most noteworthy personages of his time. He died in 1844. He was knighted by the King of Sweden for distinguished services when he was physician on H.M.S. Gordon of the Baltic Fleet. The Prince Regent of England confirmed this Order and gave permission for its use in the British Empire. Regentville was totally destroyed by fire in 1869. Some of the material was used in other buildings in Penrith, but on its own site hardly a trace exists of it to remind us of its former splendour. Jamieson Street in Sydney and Jamieson Valley in

the Blue Mountains—both incorrectly spelled—were named after Sir John Jamison. The Jamison descendants are still with us, perhaps the best-known being Lieutenant-Colonel Eric Campbell of the New Guard. In the New South Wales Calendar and Directory of 1833 are noted several Jamisons (spelled without an "e")—Thomas, of Bathurst; John, of Macquarie Street, Parramatta, and William, of Cabramatta, Liverpool. Whether these are of the same family I cannot say.

THE TOWER SEEN FROM AN UNUSUAL ANGLE.

Professor H. R. Dew

Bosch Professor of Surgery.

"If you touch 'em you kill 'em.
If you don't you won't."

Things They Didn't Teach Me

By "THE DOCTOR WHO TELLS."

POSSIBLY no day has so much excitement and pleasure for the average medical man as the first day of his career, that day when he awakes to see his name amongst the list of successful ones at the final examination. The glorious feeling of freedom and ability to look the whole world in the face is unlikely to occur at any other period of his life, unless it be after he has payed the final instalment off his first motor-car. And what a lot one knows for that final examination! Heaps more than one is likely to know for the rest of his life. All about the rubrospinal tract, the otic ganglion, sundry tropical diseases we never see in Australia, odd drugs we never use in any hospital, pickled lungs, preserved kidneys, bottled rectums (or is it recta?) and other delights of medical knowledge. And so, one bravely sets out on the journey of professional life, armed to the teeth with text-book knowledge and a complete ignorance of human nature. As the years pass on, we forget a little of the former and accumulate a little of the latter, so that by the time we reach fifty we are quite good doctors as doctors go. Some of us then become static, whilst a few keep up their reading and interest in their work, so that their opinion remains authoritative even at the age of seventy.

That reminds me that when I sat for my final examination, I showed one of the papers to a practitioner of my town, a man with a large practice and an established reputation. He read it through.

"Do you mean to say you could answer even one of these questions, let alone any more?" he inquired anxiously.

"Yes, I staggered through the lot in a sort of a way," I answered, proudly.

"Omigod," he answered, "I must have forgotten even more than I thought I had."

A few days after I had been certified as a fit person to give suffering humanity the doubtful benefit of my scanty knowledge, I accepted a post as ship's surgeon and went abroad to seek fame and fortune. Thinking that an odd difficult question or two might arise during the voyage, I languidly enclosed Osler and a surgical text-book in the cabin trunk. All went well during the first week. There was the usual sea-sickness, about which I knew nothing at all. However, it's a problem that eventually solves itself, so there was no need to worry too much about it. Like the story of the man who wailed to the ship's surgeon, "Oh, doctor, I feel so sick; I don't know what on earth to do."

"Don't worry, old man," said the doctor, "you'll soon know."

And he did.

A day after we left the last Australian port a note came that a Mr. Philips would like my services. Mr. Philips looked ill. The thermometer showed 101 deg., and his pulse was rapid. He seemed to have no other symptoms at all, except that he "felt crook." And he had a nasty pain in his kidneys. No, there was no trouble with the water. I gave him a couple of aspirins crushed into powder form to make them look more like a prescription and went back to my cabin to read up pyelitis. Then I read up a lot of other things.

"Keep your head," I said to myself, "don't get panicky. It's your first real case, so don't muck it."

Next day, Mr. Philips was worse. He also demanded to know what was wrong with him. He might just as well have asked me the depth of the ocean-bed we were passing over at that particular moment. I hedged and said it hadn't yet developed. Mr. Philips expressed the pious hope that the full development wouldn't be coincident with his death. On the third day, Mr. Philips arose again. But his cabin-mate was down with the same disease. My sluggish brain at last lighted on influenza, and most of the ship's company, including the surgeon, succumbed to it in a few days. You see, they hadn't taught me about influenza. I must have been away the day they gave the lecture. And I had never seen a case in hospital. They don't put people with mild influenza in hospital, hospitals being for much more serious diseases than that.

Odd illnesses cropped up during the voyage, and I was able to offer what little help one can in mid-ocean. In my nightly prayers I included a special petition that no one would get appendicitis. I had seen these appendices done from afar off, the body lying on a slab and being really visible only to the few who were actually doing the work. I knew all about the theory of it, however, and what you had to do with the stump, and what you might expect of those nasty ones that dipped down into the pelvis. My anxiety was hastened by the fact that a searching examination of the ship's stores had revealed operative equipment, consisting of half a bottle of chloroform, two scalpels, a pair of forceps, two needles, some cat-gut and a pair of ancient midwifery forceps, probably left behind by the ship's first doctor.

It was with this complex about appendicitis that I one day had to visit another gentleman named Josiah Wills. Josiah had the stomach ache, was definitely unwell and was vomiting. I gently examined his stomach, pressing a little more firmly to see if I could detect tenderness. "Don't do that," said Josiah, crossly, and vomited on me.

"You must lie very still," I said soothingly. Josiah looked at me scornfully, after which he got up, staggered to the wash-basin and tried to bring up some more of his last week's meals.

"Have you been eating anything?" I said brightly.

"No," said Josiah, "and I don't want to."

I made him up a bismuth mixture and awaited developments. In the evening the sea, which had developed a nasty roll, quietened down. Josiah came up on deck and said that he was much better. He was keen to get a copy of the prescription I had given him because, he explained, that it had worked quicker than anything he had ever had before. He added, apologetically, that he always got a bit squeamish when the sea got unduly disturbed.

Nothing eventful happened for the rest of the voyage, a dispensation no less fortunate for the passengers than for myself. I soon settled in an English hospital, and found that the change of environment and the interchange of ideas with others was of the greatest interest and benefit. Every medical student who can so arrange to do should try and do at least one year's work in English hospitals. The experience and widening of outlook resulting therefrom will be of the greatest benefit.

As the years went on I have gone on learning the things they didn't teach me. The most important of the lot is that persons are more important than diseases. Unless the case is an urgent one, where direct action is imperative, the chief thing to do is to study the patient. In hospitals the sick become merely numerals. In private practice they become individuals with souls to study. Therein lies the great difference between those two forms of medical practice. And therein lies the explanation why occasionally the brilliant men of the year fail dismally in private practice. They cannot see the souls for the diseases. A good doctor knows when to coax, when to order, and when to bully. The family physician knows his types of souls as a pathologist knows his types of bacilli. But the physician never makes the mistake of thinking that everybody runs true to type. Silly cults like Christian Science think that medical men do not realise the value of mind over matter. The family doctors of the world have realised it for hundreds of years. In the days of old, when medicine was completely unscientific, the only successful weapon the family doctor had in his equipment was his knowledge that mind was at least as important as matter.

One of the other things they didn't teach me when I was trained on the latest scientific lines for the medical profession, was that nearly eighty per cent. of medical practice is composed of women and children. And they also forgot to mention that half the women have nothing definite that you can find in the text-books. Those pains in

the back that might be due to misplacements, faulty postures or loaded rectums (or is it recta?) according to the authority you most believe in. Those vague indigestions and chronic constipations from which they all suffer. . . . They forgot to teach me, too, that emotion plays a tremendous part in a woman's life and that when her husband goes off the straight and narrow path, she develops insomnia, indigestions, and that syndrome of symptoms called neurasthenia, only curable when hubby comes back again.

Ah, yes, there are plenty of things they don't teach you when you are earning those magical letters after your name . . . unless, of course, things are very different from the time when the writer began his course. Or, if they teach 'em, they don't emphasise 'em. Which is even worse.

(Names—and anything else you like—in this Diary, are fictitious.)

"WHILE WE WERE PASSING THROUGH MEDICINE."

No. 6.—Attacks Surgery from all angles.

Death Valley and the Earthquakes

By "PONS."

YOU must blame a friend of mine, a geologist, for the fact that this article was ever written: the guilt is wholly his. The geologist and I were sitting at my fire the other night and he discoursed about the strange places and peoples he has seen. He talked, for instance, about the Hairy Ainu; they are insanitary by habit, he said, and given to polygamy and deeds of blood. He described the home lives of the Esquimaux, God's Frozen People. They eat noisily, wash infrequently, and smell shockingly. And during the twists and turns of conversation, we got on to the topic of the terrible Death Valley, in America, that sun-scorched chasm of barren rock and poisoned water. In the Valley, round about the wreckage of their old covered waggons, lie the bones of men who travelled that way, years ago, on the track to the Californian gold rush. Not one man who entered the Valley on that dreadful journey ever came out of it alive; not one of them ever reached California.

"California is no health resort, either, if it comes to that," said my cheerful friend; "it's always on the jump, more or less, just as Japan and New Zealand are. The reason? Simply that the bed of the Pacific is unstable. It moves about, and, naturally, the edges of the basin move, too. People think this world's settling into a prosaic, solid mass. But it isn't, really. We're in for a bad smash soon, perhaps to-night, or in fifty thousand years."

"Well, if we get through to-night, I shan't worry about the fifty thousand years," I said. "Besides, earthquakes are good for us; good, strong, intellectual earthquakes, I mean. People like Lister and Simpson made the old doctors jump out of bed and rush out without their pants, to find out the cause of the rumbling and shaking. And there were lots more like Lister and Simpson, too."

Science, like the bed of the Pacific, is always moving; every now and then we get a bad shock; there is a convulsion in our ways of thought, and the mental landscape is strewn with the wreckage of old ideas.

Hippocrates, you remember, thumbed his nose at the claptrap of the priests. He tired of incantations and peering at the viscera of dead animals. Instead, he questioned and prodded and pushed at people; thus, he invented the habit of history-taking, of making precise medical notes. The notes are so excellent that we can say in 1933 A.D. exactly what ailed those Greeks in 420 B.C.

Galen, too, rocked the ground under the old doctors' feet by his examination of the bony skeleton, and of the

structure and workings of the spinal cord. Vesalius, at Padua, pooh-poohed the anatomy taught in the Middle Ages. He dissected criminals for himself, and students from all over Europe swarmed round him. They are a noble troop, these men of restless spirit—the Jenners, Kochs, Ehrlichs, Pasteurs and Da Vincis. They cause the hearty jolts that keep Science and men alive.

Every medical student reaches the day on which he is no longer a mere medical student, but a Student of Medicine. He now faces, for the first time, the human material which will be his care for the rest of his professional life. This means that he must learn the right use of his eyes, ears, and hands, and ponder on what he sees and hears and feels. Very especially, he must practise the art of examining the human chest, for, between our waistcoat buttons in front and the fork of our braces behind, there are many marvels.

Therefore, I take up my pen (as schoolboys say, when writing home for money) in an effort to tell of men who laboured to solve some of the problems beneath our ribs. They stumbled, it seems almost by chance, on truths long hidden; and the result was the collapse of much lath-and-plaster, jerry-built guesswork.

Round about the year 1722, in the town of Graetz, there lived an inn-keeper, named Auenbrugger. The people of Southern Austria like to sit, singing and drinking, round tavern tables, so Auenbrugger's business flourished. In the work of the inn he was aided by a small boy, his son Leopold. The boy sprinkled sawdust on the floor, washed the pots and glasses, and carried wine to his father's patrons. Many times during his daily shift he would clamber down into the cellar to draw fresh wine and find out how the stocks of liquor stood.

"My father," young Leopold would say, "we need more Rhenish, below there in the cellar, and of the Moselle only half a cask remains."

"Ach, so," old Auenbrugger would answer, "at once, then, we order more." And folding his hands over his apron, the landlord would beam upon his guests and say, "He is a good boy, that Leopold of mine, and a clever boy, yes."

It was true enough. Leopold's reports about the wine were always correct. The boy possessed a quick and musical ear. Squatting on the cellar floor, with a lantern beside him, and tapping on the butt with his fingers, he could say, to the fraction of an inch, how much wine a given cask still held. Where there was no wine, nothing but empty space, Leopold's tapping finger produced a hollow ringing; but at the level of the wine, and below that level, the cask answered with a dull wooden sound. Leopold practised hard with his fingers, to become in time an expert at tapping or, as we now say, at the art of percussion. As the lad grew

older, old Auenbrugger muttered to himself, "Shall this son of mine spend his days as a scullion, a carrier of drink to waggoners and hucksters? Ten thousand devils, no! This tap-room is not for my Leopold. He shall go to Vienna to learn. He shall be a doctor, a famous doctor!"

It was so. In 1743, young Leopold Auenbrugger won his degree. He was a clever young physician, and we find him, at twenty-nine, on the staff of the Spanish Military Hospital, the finest institution of its sort in Vienna. Ten years later, Auenbrugger published a slender book. He had written it in Latin, and named it "Inventum Novum." In brief, this small volume described a New Method for the discovery of disease within the chest. The doctor tapped the patient's chest with his fingers—that was all. But the solid lung of pneumonia, the cavities of the tuberculous lung, the fluid of a wet pleurisy would yield up their secrets when the doctor knocked.

The book attracted no notice in Vienna. Whether by reason of professional indifference or of professional jealousy, it was, emphatically, not a "best seller." Not for many years did Auenbrugger reap the harvest of praise, and the recognition from his brethren which his genius deserved.

Contrary to my habit, and trusting that the matter will go no further, I am now about to retail a piece of gossip. Please close the door. Well, in Auenbrugger's day, the noted physician of Vienna was an importation—a Dutchman, named Van Sweiten. This visitor from Holland was enormously successful. He enjoyed the favor of the Court, and, as everybody knows, people will truckle to the man whom the King delighteth to honour. At that time, so it happened, there was no heir to the Austrian throne, a deficiency which caused the Emperor to sulk and bite his finger-nails. But one day, the story runs, Van Sweiten managed to draw the Emperor aside and to whisper something in his royal ear. What advice the Dutchman gave, I know not; but this I do know—that it must have been advice which, in these days of birth control, would result in a modern doctor's being mobbed by his patients and stoned to death. For the Empress, Maria Theresa, became pregnant, and in due season gave birth. She became pregnant again, and again, and yet again, until the tally of her pregnancies was sixteen. You will gather from all this that the succession was now assured. You may now re-open the door. Van Sweiten became a baron and was given many well-paid posts. His practice grew and grew, and riches poured into his pockets.

Now, Auenbrugger was his pupil, and the two men were friends. Moreover, Van Sweiten posed as something of a chest specialist. One would suppose that a personage of Van Sweiten's tonnage could have, and would have, helped Auenbrugger to success. Yet through all the Dutchman's

writings—and he wrote nineteen mammoth volumes—there is no word of Auenbrugger's discovery of percussion. Van Sweiten's successor, an unpleasant quack called De Haen, also ignored the work of the innkeeper's son. De Haen's chief contribution to medical literature was a treatise in defence of witchcraft, long since dumped on the rubbish heap. Time, like an ever-rolling stream, bears all the quacks away. They fly forgotten as a dream, but the Auenbruggers live for ever.

Happily, the "Inventum Novum" was to meet with a kinder reception abroad. Always, the French have been quick to appreciate intellectual worth, to hold out welcoming hands to foreign genius. Einstein, hounded out of Germany, has been received at the College de France, where Calvin, Ignatius Loyola and Mickievicz once taught. James McNeill Whistler, the artist, after the attack on his work which was launched by Ruskin, Burne-Jones and Frith; after he had been trounced in the columns of "The Times" and the pages of "Punch"; after Oscar Wilde had said that praise of the artist from the British public would be the final insult to offer him—after all these tumults, Whistler had the joy of knowing that his magnificent portrait of his mother was hanging in the Luxembourg Gallery. And so now, in a sense, it was with Auenbrugger. In 1770 his book was translated into French by Roziere. But greater honour was later to befall it: the forthright and brilliant Corvisart, the doctor of Napoleon, prepared yet a second translation. Corvisart was famous, and of European reputation. Nothing, short of torture, could have induced him to act as godfather to any cheap or trashy book. In the "Inventum" he had found a treasure, and he knew it. The preface of Corvisart's translation includes this passage:—

> It is Auenbrugger and the beautiful invention which of right belongs to him, that I wish to recall to life.

Recall to life! There was more of truth in the words than Corvisart knew. Through the Frenchman's generous act, Auenbrugger had become famous almost overnight. But he had reached the twilight of his days. Forty-seven years had now passed since the first publication in Vienna of the slender little "Inventum," and the innkeeper's son was in his eighties. But the neglect of his colleagues caused him no heartburning, for there was no malice, no spite in his make-up. His portraits show us the face of a jovial, contented and prosperous man. Auenbrugger had succeeded. His practice was a large one. His lovely wife, his garden and music were his chief delights. The old fellow actually wrote an opera entitled "The Chimney Sweep," which the Empress herself was gracious enough to praise. And, in 1809, with his wife's hand in his, and his eyes to the last on his garden, the aged doctor died, leaving a thin little book as his everlasting monument.

It was in Britanny, in the town of Quimper, that Auenbrugger's successor, one of the greatest figures in the history of Medicine, was born. In Britanny dwells a people entirely alien to the rest of the French nation. The Breton is a Celt. His language, customs and costumes are his own; he hates modernity and the changes of fashion; he loves ancient tradition and time-worn usage. Nowhere more securely than in Britanny, I am told, do the arms of Holy Church enfold her children, for the Bretons are devout Catholics. When Ernest Renan dared to say that philosophy and culture would one day supersede religion, when he penned, in matchless prose, his "Life of Jesus," there was an uproar in the Breton village of Treguier, whence Renan came. Muttering angrily amongst themselves, the villagers gathered in the square. Was it possible that one born amongst them, and trained for the priesthood, see you, could utter such hideous blasphemies. And now some foreigner, some miserable Parisian, wished to erect a statue of Renan in the market-place of Treguier. Let him try! We will wrench the image of the faithless one from its pedestal, and smash it upon the ground. But yet, beneath this surface layer of devotion to God and His Vicar on Earth, there lingers still, they say, the traces of beliefs dating back to the Druids. There is a hint of them in the ceremonies preceding the yearly sailing of the fishing boats from Point St. Mathieu, L'Orient and St. Nazaire; there is a hint of them in the words of Cesar Franck's song of the Breton harvest festival, "La Procession":—

> Il vient, suivit du peuple . . . .
> On s'arrête . . . .
> La foule, autour d'un chêne antique
> S'incline en adorant.

You see the pale-faced, awe-stricken crowd. There is a chanting amongst the white-robed priests. A sigh rises from the people, like the breath of a passing wind. The human sacrifice is handed up to the altar. . . . Religion, superstition, loyalty, toryism—such are the attributes of the Breton mind.

Laennec, the lawyer of Quimper in the year 1781, was a poor man. The place was sleepy, and his clients were few. Doctors cost money, too; and Laennec's wife was not only consumptive, but had just given birth to a sickly and puny boy. The infant's greatest possession was his stately name —Rene Theophile Hyacinthe Laennec.

Inside half a dozen years, Madame Laennec had coughed herself into her grave, leaving the needy notary to manage the nurture and the future of his delicate son. For a short time, in order to commence his studies for the priesthood, little Rene lived with his granduncle, the abbe of Elliant. But the Revolution swept across Britanny in a fury of destruction and slaughter. Churches were destroyed and the

roadside crucifixes uprooted. The good abbe of Elliant, a rigid monarchist, like all Bretons, was proscribed. Rene was forced to fly back to his father at Quimper. The starving lawyer, whiling away dull days in the writing of small verses, was at his wits' end to provide for the boy. But at length Fortune smiled.

Away in the south-east, in the town of Nantes, Rene's uncle, Guillaume Laennec, occupied the Chair of Medicine at the local University. "Come to me, my Rene," said uncle Guillaume, "I will make a doctor of you. As for this non-

LAENNEC.

sense about the priesthood . . . pouf!" Thus, Rene Theophile Hyacinthe Laennec boarded the diligence for Nantes. At the University on the Loire, he outran all his rivals; he was a born doctor, and the day came when Nantes could teach him no more. Then, miraculously, six hundred francs reached him, with his father's blessing. Laennec packed his few belongings and set out for his goal, Paris. He was now twenty years old, a queer, ill-clad, underfed figure, beset by bouts of coughing. But even with the millstones of poverty and sickness about his neck, he climbed the medical ladder of Paris three rungs at a time. He had few books, a poor

lodging, and patched and threadbare clothes. To maintain life, he picked up odd francs by writing for the "Journal de Medicine." All the same, within two years, medical Paris pricked up its ears. The doctors had heard of Laennec; he was causing noticeable earth-tremors. What industry, messieurs, what zeal!

Forever dissecting or writing, Laennec published reports of four hundred cases of disease, every one observed by himself. He invented strange, new medical words. It is to Laennec that we owe the terms "rale," "bronchiectasis," "oesophagitis," "aegophony," "pectoriloquy," and dozens more. If he lived to-day, his conversation on professional things would sound much like that of a modern doctor. The eager French minds could not fail to notice that a new and talented actor had walked from the wings on to the stage. A feeble, shabby figure, perhaps; yet men listened when the newcomer spoke. "If your young countryman, Laennec, lives to reach fifty," said Halle to a Breton visiting Paris, "he will be the most famous doctor of Europe. Howbeit, in these early years in Paris, Rene remained miserably poor. Earnings in 1804, five hundred francs; earnings in 1805, four hundred francs. That means poor food, and leaky shoes, and no fire in the garret. Some doctors are jovial and breezy. You all know them; they are fond of slapping patients on the back, and patting their hands, and saying, "There, there, little girl." But Laennec was not of that type. He was cold, aloof and distant as to manner. He was a poor advertisement for his tailor, and he coughed, constantly and annoyingly. But in spite of it all, the tide was on the turn. In 1816, his earnings were between ten and fifteen thousand francs a year, and two famous hospitals of Paris had gladly opened their doors to him. Also, in that year, 1816, Rene, by a mere chance, hit upon the discovery which, above all else, has made his name famous in Medicine.

Early one morning, Laennec was walking through the courtyard of the Louvre. He was making his way to the bedside of a woman—a very fat woman, as it happened—who suffered from heart disease. At least, Laennec suspected that she so suffered. In those days there were three methods of examination available to him. He could (a) feel the woman's pulse, (b) percuss her chest, for he knew all about Auenbrugger, or (c) he could listen to her heart-sounds by placing his ear over her breast.

The prudish mock modesty of the times forbade the planting of the doctor's ear on a female bosom, and Laennec, thinking over the matter, was worried. But as he walked through the Louvre he noticed, absentmindedly, a group of urchins who were playing round a pile of timber. He halted to watch. There seemed to be much shouting and laughter. A child was holding one end of a light beam to his ear,

while at the far end a second boy was scratching industriously with his finger. For a split second, Laennec waited. Then, buttoning his coat, he ran at top speed to the fat lady's home. Arrived there, he—but let me tell you the story in Laennec's words:—

> I was consulted (he says) in 1816 by a young woman who exhibited the general symptoms of heart disease, but in whom palpation (or feeling with the fingers) and percussion yielded uncertain results by reason of her excessive fatness. The patient's age and sex forbade direct auscultation (the application of the ear to the chest) so I recalled a well known acoustic phenomenon. If the ear be applied to one end of a post, the scratching of a pin at the other may be clearly heard. I thought, therefore, that it might be possible in the case in question to avail myself of this property of matter. I took a quire of paper, and rolled it into a tight rod, one end of which I applied to the praecordium (over the lady's heart, that is). Applying my ear to the other end of the rod, I was as much surprised as delighted to hear the heart beats much more clearly and distinctly than ever I had done by means of the immediate application of the ear.

Surprised and delighted? Well, yes, just a little. Next day, at the Necker Hospital, Laennec was rolling paper cylinders for dear life, and trying them out on his patients. Then, for three solid years, he experimented with the instrument which he had now christened the "Stethoscope," which is to say, "the Chest Examiner." He purchased a lathe, learnt the business of wood-turning, and fashioned his stethoscopes from all sorts of wood—from beech, cedar, oak, ash, ebony, and larch. Some of the stethoscopes were hollow, and some were solid. Some were long and some were short. But, finally, Laennec was satisfied with his labours. He settled in the end upon an instrument one foot long, with a hollow running down the middle. It might be fashioned of any wood, he said,—the actual material was of no consequence. Make a good tube of anything you liked, and you would hear the voices of the lungs and heart.

So, practically until our day, stethoscopes built after Laennec's design, either in wood or metal, have held their own. The doctor of a few generations ago carried a lancet in one pocket, a bottle of powerfully acting pills in another, and a stethoscope inside his tall silk hat. Nowadays, of course, Laennec's instrument, to which only one ear can be applied, has been largely displaced by the binaural stethoscope, a thing of rubber and shining nickel.

Laennec's book describing his discovery bore the title, "Traite de l'auscultation mediate," a method, that is, of listening through a medium (the stethoscope) rather than with an ear resting immediately on the patient's skin. The book was a huge success, and caused an instant revision of

the prevailing opinions about diseases of the lungs and heart. From England, America, Sweden, and Germany, roars of congratulation reached Laennec. But he was a sick man. The spectre of consumption had laid its cold fingers upon him, as on his mother years before. He sold his library and his furniture, and, no richer than in the days of his first arrival in Paris, he returned to Quimper.

But consumptives are often optimistic, in the very face of death. By some evil chemistry, the germ of the disease prepares a subtle poison productive of hope and courage. Buoyed up by a temporary improvement in his health, Laennec was soon back at work in Paris. He found himself inundated with honours. Chevalier of the Legion of Honour, Professor of Medicine at the College de France, member of this medical society and that, applauded and consulted by colleagues in London, Bonn, Liege, and Stockholm, what prize was left for him to covet? One post, strangely enough, he valued far above all others—that of physician to the Duchesse de Berri. In his heart he was still the royalist, still the lover of the old regime, still the unchanging Breton.

And who was the Duchesse, exactly? Her life and deeds seem to have made a very small stir in the world. But her doctor's name will live so long as there are patients with hearts and lungs.

The rest of the story is soon ended. The end was in sight for Laennec. His restless activities only aided the rapid march of his disease. He died, in the year 1826, in his native country of Britanny, at the age of forty-five.

An Austrian child tapped a wine cask, a French child scratched a piece of wood, and in the years that follow, thousands upon thousands of lives are saved. Such diseases as pneumonia, pleurisy, tuberculosis can now be effectively treated very largely because Auenbrugger and Laennec did so much to establish physical means of detecting them.

We can confidently hope that the river of inspiration will not run dry. Always in the future there will be a stream of new methods of diagnosis, new principles of treatment, solutions for problems as yet unsolved. The stream may lessen to a trickle at times—at others it may overflow its bank. But it will never become a chain of stagnant ponds.

The time may come when illness, perhaps even death itself will be regarded as a reproach, alike to doctor and patient. That happy day is far distant; in the meantime, it is our duty to be prepared to journey into Death Valley, not on our way to the Gold Rush (for personal gain is the last of a doctor's concerns), but that we may bring back some poor traveller alive.

John Irvine Hunter

Stanhope Hastings MacCulloch

By ALFRED J. GIBSON, M.B., Ch.M., F.R.A.C.S.

THE late Dr. Stanhope Hastings MacCulloch, a great Australian obstetrician, for many years was the guiding spirit of, and his name will always be associated with, The Women's Hospital, Crown Street. The present position of the hospital is mainly due to his influence.

Dr. MacCulloch, the second child in a family of thirteen, was born at Wilson Street, Newtown, on 15th January, 1852. His father was Thomas MacCulloch, a grazier, the owner of "Obley," and later "Buckinbah," Yeoval, New South Wales. He was educated at the Sydney Grammar School, and at the Sydney University. In his young days he was a prominent footballer and boxer, and he was always a keen sportsman and a lover of Natural History in all its branches. In 1872 he went to England and received his medical education at the University of Edinburgh, for at that time the Sydney Medical School was not in existence.

His Medical Training.

At Edinburgh one of his teachers was James Spence, Professor of Surgery. Professor Spence exercised a great influence over Dr. MacCulloch and seems to have taken a great personal interest in him as well. As a student Dr. MacCulloch attended Professor Spence on his daily rounds at the Royal Infirmary, and in the out-patient department, acting first as Dresser and, later, as Clinical Clerk. Dr. MacCulloch used to say that he learnt so much from Professor Spence at the bedside, and so thorough was his training in clinical methods, that it was hardly necessary for him to read the textbook of surgery at all for the examinations. Knowledge obtained by thorough observation and teaching at the bedside is rarely forgotten, and the insight into the processes of disease obtained in this manner makes for far greater proficiency in medicine than can be obtained from textbook study.

While at Edinburgh he was advised by his brother-in-law, Dr. Alston, who had a large practice in Sydney, to make a special study of midwifery, because, at that time, there was a great need in Sydney for some one specially trained in that branch of medicine. Dr. MacCulloch followed this advice after graduation, and succeeded in being appointed House Surgeon to the Edinburgh Royal Maternity Hospital. There he worked under Matthews Duncan, who afterwards left Edinburgh and practised in London

Dr. MacCulloch used to tell a story about Matthews Duncan to illustrate his uncanny powers of observation and

memory. One day, while doing rounds, Matthews Duncan, coming up to one patient, said to Dr. MacCulloch, "Doctor, when did this patient pass urine?" Dr. MacCulloch turned and asked the Sister, but he was sternly told that he was expected to know all about his patients, and that he had been asked the question and not the Sister. He was unable to give the desired information, so a catheter was ordered, the bedclothes were turned down. A large bladder tumour was demonstrated, which quickly disappeared when the catheter was passed. When Dr. MacCulloch was returning to Australia he called on Matthews Duncan in London, and was invited to go to St. Bartholomew's Hospital, where Duncan was going to do his rounds. During the rounds the new House Surgeon was called upon to answer the same question about a patient's bladder; with an equally unsatisfactory result, and Matthews Duncan turned to Dr. MacCulloch and said with a twinkle in his eye, "We never did those things in Edinburgh did we, MacCulloch." Dr. MacCulloch said he never knew how Duncan diagnosed the condition without ever seeing the abdomen. Duncan asked Dr. MacCulloch to remain as his assistant, but as he wished to return to Australia he refused the invitation.

After two years in Sydney he again returned to England and travelled extensively. In August, 1882, he married Miss Jane Roberts in London, and at the end of 1882 returned to Sydney, where he practised for forty-eight years.

His Work In Sydney.

He was at first associated with his brother-in-law, Dr. Alston, who had a very extensive practice. Dr. MacCulloch's thorough training in obstetrics stood him in good stead and very soon he was regarded as an authority on that subject. In those days it was very difficult to secure an appointment on the Staff of the Royal Prince Alfred or Sydney Hospital. They were rather closed preserves and so, as these avenues were closed to him, he made his lodge patients his hospital patients, and often visited one of them three or four times a day if he presented a difficult or interesting case, simply to study the changes of disease from hour to hour, and to observe the effect of treatment.

He had to deliver patients, with difficult obstetric complications, in their own homes because hospital accommodation was lacking and, several times, he had to do a Caesarean Section in places like Sussex Street, sometimes by candlelight. Those were the conditions men worked under in those days.

The Foundation of the Women's Hospital.

On October 16, 1893, The Women's Hospital and Dispensary was opened at Hay Street, Belmore Park. The

building was one of two small houses, consisting of four rooms and an attic, situated opposite the Hotel Sydney of to-day.

The Founders of the Hospital were Dr. (later Sir) James Graham, Dr. A. Watson Munro, Dr. L. E. F. Neill and Mr. David Fell, and the initial expenses were defrayed by these gentlemen. The necessity for the establishment of such an institution was impressed upon the Founders by the fact that at that time systematic attendance on lying-in women was almost entirely neglected, and the only accommodation offered to such patients was the Lying-in Department of the Benevolent Asylum, which discharged this anxious work under grave disabilities. During the first year only a daily out-patient clinic was conducted, where women suffering from diseases peculiar to their sex were given professional advice and aid. Minor operations were done in the patients' own homes.

One of the objects of the institution was to provide instruction to nurses in the work of midwifery, and Sir James Graham gave a series of systematic and practical lectures on this subject. Forty-three nurses attended in the first year. Dr. MacCulloch and Dr. T. Fiaschi assisted in the earlier examinations of the pupil nurses.

Only one indoor patient was treated up to the end of 1896 in Hay Street, as only modest provision existed for such patients. In 1895 the Hospital became a public organisation with a duly constituted Board of Management, and Lady Windeyer was elected first President. In 1896 it was felt that an Indoor Department should be established, and so premises were rented at 242 Elizabeth Street, and the first patient was admitted in October, 1896.

Eight months later the Directors, finding the accommodation inadequate, concluded negotiations which resulted in the Indoor Department being transferred to Crown Street, the site of the Hospital to-day. Miss Hannah McLeod was the first matron.

Dr. MacCulloch's Association With Crown Street Hospital.

Dr. MacCulloch became associated with the Hospital soon after its foundation, and from then on he was the mainstay of the Consulting Staff. His devotion to the work was unceasing. The Women's Hospital became almost a part of Dr. MacCulloch's very existence, and later, when he was unable actively to participate in the medical work, a special position of Honorary Consulting and Visiting Medical Officer was created for him, so that his association with the Hospital could still continue. Right up to the time of his death he would go round the hospital once a week, seeing patients in consultation and advising generally on medical and hospital management.

PROFESSOR J. C. WINDEYER,
Professor of Obstetrics.

Dr. MacCulloch strove during his whole life to raise the standard of obstetric work in New South Wales. He realised that an essential part of a good obstetric service was to have adequately trained nurses, who would work in conjunction with properly trained doctors. He, therefore, insisted that the period of training of a nurse in obstetrics should be increased to at least one year, and he always stressed the point that nurses should be trained to act as efficient nurses and not as inefficient doctors. In addition to the great amount of time and thought he gave to the training of nurses, he also taught and demonstrated to students and doctors at the Women's Hospital. He did this at the request of the students themselves, and did not receive any remuneration for this service.

The Great MacCulloch.

He was one of the University Examiners in Obstetrics for many years, acting until bad health prevented his doing this onerous work. An excellent lecturer, he made everything appear so simple that one wondered why the problem had appeared so difficult before he had elucidated it. To act as an examiner with him was an education in itself, and I was fortunate enough to be his co-examiner of nurses on many occasions. His knowledge of disease was profound not only in obstetrics and gynaecology, but also in general medicine and surgery, children's diseases, and many of the special branches as well. He could speak from wide personal experience based on thorough bedside and clinical observations, supplemented by extensive and judicious reading, and he had the happy knack of knowing how to impart knowledge.

He had a wonderful personality and possessed that power of instilling complete confidence in a patient the moment he entered a sick room, an attribute which is so much desired by all of us. All his patients loved him, and he was generous of his time and skill and money to such an extent as to be almost unfair to his own material interests. He never at any time sought the limelight, and remained a keen student of obstetrics to the end of his life. He was the staunchest of friends to any one whom he admitted to his friendship. Always a scrupulously just examiner, he was a very helpful critic and an inspiration to any one keen on his work. There is much more that I could tell you did space permit, but I must close this very imperfect tribute to a very great man.

There are, unfortunately, but few medical men left of the type he represented, but I can conceive no nobler type of medical man than the men of his stamp, generation, and training.

Early Days of the Medical School

By CECIL PURSER, B.A., M.B., Ch.M.

THE Medical School was opened in 1883, and a start was made with four students. In 1887 the first final degree examination was held, and all the students who tried for the final M.B. examination failed. One of these, D. D. Rutledge, M.A., continued on with the next year, and he obtained his degree with the first group of graduates in 1888. The other five of the first batch of graduates were: Peter Bancroft, A. E. Perkins, M.A., W. G. Armstrong, B.A., A. G. Henry, and L. G. Davidson; Armstrong and Davidson are still with us W. G. Armstrong was formerly City Health Officer for Sydney, then Chief Medical Officer in the Department of Public Health, later President of the Board of Health and Medical Adviser to the Government, and now a member of the Board of Health and Pure Food Board. L. G. Davidson practises as a specialist in Macquarie Street. It is interesting here to note that W. G. Armstrong was the first president of the Undergraduates' Association, which was formed in 1888, showing that medical students in early days took an active part in undergraduate life. W. G. Armstrong, with George Rich, now Mr. Justice Rich, of the High Court, were the founders of the University Boat Club.

In 1889 there were seven graduates, and three of these were: A. E. Mills, of Macquarie Street, formerly Lecturer and later the first Professor of Medicine in our Medical School; Aeneas John McDonnell, who is still practising as a surgeon in Toowoomba, Queensland, and who has done especially good work for the Toowoomba Hospital; and Arthur Henry, of Dapto.

In 1890 there were nine graduates, and three of these remain: John Morton, surgeon, of Macquarie Street, who has done good work as Hon. Surgeon in several hospitals, especially at R.P.A. Hospital and The Women's Hospital; Gavin Morton, who served for many years as Resident Medical Officer at Gladesville Hospital for mental cases, now retired; and the writer of this article.

At the outset a good foundation in teaching was established. The small number in the classes had its advantages, and was productive of much benefit to the students, since each teacher came to know all his students, more or less intimately and individually. The individual teaching was undoubtedly beneficial to the small batches of students in the early days.

The Appointment of Dr. Anderson Stuart.

It was a fortunate selection, when Dr. T. P. Anderson Stuart was appointed Professor of Anatomy and Physiology to start our Medical School. He was its veritable founder, and the first active Dean of the Faculty of Medicine, a position which he held from his taking up his duties in 1883, until he died in 1920. By virtue of this position he was a member of the Senate of the University during the whole of this period. He was also a director of the Prince Alfred Hospital from 1883 until his death, and was chairman of that institution from 1901 until 1920. For many years Prince Alfred, later The Royal Prince Alfred Hospital, was the only clinical school connected with the University.

Anderson Stuart built the School on a sure foundation. He exercised a marked influence over those who were brought into close contact with him, and he imbued one with the desirability to work hard. He had remarkable gifts of organisation. When he made up his mind to achieve some objective he generally did so. The planning and building and establishing on a sound basis of the Sydney University Medical School and the bringing of it to a successful issue was Anderson Stuart's objective, and he realised it.

Scholarly, keen, enthusiastic and a good disciplinarian, he was ever intent upon imparting knowledge to his students. We started under him with Osteology, and he could make the dry bones practically live. He was a pastmaster in asking the question, why?, and that was imparted to many of his students, including one well-known lecturer and professor and examiner in after years. Ask anyone who has been a student under or who has been examined by A. E. Mills. Stuart was evergreen with models and diagrams to illustrate his lectures. He imported John Shewan, who was class attendant to Professor Rutherford in Edinburgh, to be his class attendant. Shewan was a marvel in evolving models and diagrams to illustrate lectures, and they were a wonderful help to students. We are pleased to have Shewan still with us as Curator of the Macleay Museum.

In a Four-roomed Cottage.

We started in the four-roomed cottage, which was built where the Geology Department now stands, with an annex of two rooms, which were added as a lecture room and dissecting room. No one at that time ever dreamed that in such a short space of time, such a magnificent building as the Medical School would be erected, and most people, when it was finished and occupied in 1889, considered it a mad scheme that such a large building should have been erected.

Our year—we were the third group to graduate—were the first 5th year to be lectured to in the new building, and we were the first group to graduate from it in 1890. Our small number—we graduated with nine—as we sat in the

front row of the large lecture room, and all the tiers of empty seats behind us, thought that the building was years and years ahead of the times, but Professor Stuart lived to see the large lecture rooms filled with students.

In 1889 there appeared in the Song Book (the second to be issued) a song headed, "Laus Stuarti," set to the tune of "Tarpaulin Jacket," and one verse read thus:—

> That building some called it his folly,,
> Some said he would ne'er make it gee;
> They are now filled with sad melancholy,
> For he's worked out his little "Idee."

Stuart's dream was realised six years after his arrival in Sydney.

The First Curriculum.

It may now prove of interest to describe the first curriculum adopted. It consisted of a five years' course, but only four years were practically medical. The first year in the Arts course was taken as the first year in the Medical course, and a student with a degree in Arts, or having passed first year Arts, could enter the second year in the Medical course. In our year, the fourth from the founding of the Medical School, three who had obtained the B.A. degree in Arts entered the second year in Medicine—in the first year in Arts course one had to attend and pass in a course of lectures in Physics.

During our second year in Medicine, we were lectured to in Chemistry (inorganic, organic and practical), Botany, Zoology, and had to pass in these subjects. We were lectured too in Osteology during the third term, but there was no examination in this subject. We also started dissections during the last term of second year.

During the third year, we received lectures in Anatomy, Physiology, Materia Medica, Therapeutics, Dissections all through the year, and attended Prince Alfred Hospital in the casualty department during the last term, being taught bandaging, splinting and dressing of wounds.

During the fourth year we attended lectures in Anatomy, including Embryology, Physiology, Systematic Surgery, and we attended the R.P.A. Hospital in Surgical Out-Patients' Department, and acted as surgical dressers in the wards.

During the fifth year we received lectures in Systematic Medicine, Clinical Medicine, Medical Jurisprudence and Public Health, Midwifery and Gynaecology, Diseases of the Eye and Mental Diseases; attended R.P.A. Hospital in Medical Out-Patients' Department, and special departments in Out-Patients, and acted as clinical clerks in the wards.

During our second and third years we had class examinations in Anatomy and Physiology each term, and all who obtained 50% and over had their names recorded in the University "Calendar." These term examinations stimulated one to work.

At the end of the fifth year, in December, we were examined in Medicine and Surgery (systematic), Jurisprudence and Public Health, Midwifery and Gynaecology, Mental Diseases and Diseases of the Eye, and in March the following year we were examined in Clinical Medicine and Clinical Surgery, having case taking and written examinations, and viva voce. This method of final exams. assisted all markedly in becoming better equipped in clinical work.

The curriculum was altered in 1888, 1903, and again in 1926. Some of the first body of teachers were very original; some were very ancient and not "up to date"; and there was only one professor, our founder, T. P. Anderson Stuart, who was Professor of Anatomy and Physiology combined.

The First Demonstrators and Lecturers.

Very soon after the School was opened, Professor Stuart introduced excellent demonstrators from Home. Dr. MacCormick, now Sir Alexander, demonstrated to our year in Histology, and was Demonstrator in Anatomy for some time, and in this he was facile princeps; he was Lecturer in Surgery from 1890 until 1914. Dr. Charles Martin, now Sir Charles, was a keen and excellent demonstrator in Physiology; he was appointed Professor of Physiology to Melbourne University while at our Medical School, and was afterwards Director of the Lister Institute in London, and for the past two years has been in charge of the Council of Scientific and Industrial Research Department at Adelaide and returned to London in July. Almroth Wright, now Sir Almroth, followed Charles Martin as Demonstrator in Physiology; a keen lucid lecturer, he was afterwards Professor of Pathology at Netley.

The Lecturer in Botany was amusing and prosy. The Lecturer in Midwifery and Gynaecology was the Honorary Gynaecological Surgeon at the Sydney Hospital. We used to visit the old Sydney Hospital on Saturday mornings to be present at operations, practical demonstrations, etc. This lecturer was a keen diagnostician, and a competent surgeon. With no antiseptics his advice was "plenty of soap and hot water, gentlemen," and he obtained excellent results from his operations. He invariably obtained healing of wounds by first intention. He dropped his h's and did not love Prince Alfred. His regular greeting on Saturday morning was " 'ow is the 'ouse on the 'ill, gentlemen? Any Alexanders up there lately?" He did not believe in the Alexander operation for shortening of round ligaments. The Hon. Surgeon at Prince Alfred did; he was a good lecturer, was able to impart his knowledge, and he had a fund of his own operative work to discuss and comment upon.

I recollect well the first pelvic examination I made for him and he inquired, "What do you find, mister?" I had not detected anything abnormal, position good, no lacera-

tions, and he urged me to " 'unt about in the 'ollow of the sacrum." I did so, and eventually detected something abnormal in the posterior fornix. It was a prolapsed ovary. His injunction has often stood me in good stead.

The Lecturer in Surgery was of an ancient type, but he was an exceptionally nice, kind, old gentleman. The lectures were delivered in the room at the bottom of the tower in the main University building. So many lectures were crammed into the fourth and fifth year that it was difficult to find a room wherein lectures could be delivered. Our year were placed in the new building for our lectures in the fifth year. The lecture in Surgery was delivered between one and two p.m., and then we indulged in our frugal lunch of sandwiches, fruit, etc. The lecturer gave us word for word from Erichsen's "Surgery," and consequently we used to read up the subject of the lecture beforehand, and sometimes we were not too attentive to the lecturer, whose enunciation was not what one would term good, and he was not an adept at keeping order.

The lectures in Materia Medica were given in a small cramped room, just on the right before reaching the Stenhouse Library. This room, later on, for a long period was used as part of office accommodation. There was no lecture room in the four-roomed cottage; only lectures in Anatomy and Physiology were delivered there. The lectures in Materia Medica were illustrated by numerous bottles, containing specimens of all kinds. I recollect that specimens of manna were only available for a very short period of time; the bottle soon became empty, because it could be recognised by its taste. The Lecturer in Medicine was a dear old English gentleman, who endeared himself to his students. He fortunately lectured from a good text-book of the day, Bristowe's "Medicine," and we used to keep up with the lectures by reading up the subject. We also used to refer to and read Fagge's "Medicine."

The Lecturer in Clinical Medicine was keen, lucid, and competent, and he helped us markedly in our Medicine. We owe a great deal to Dr. Scot Skirving.

We were fortunate in having our lectures in clinical Surgery delivered by the senior Honorary Surgeons at the Prince Alfred Hospital, and we learned most of our surgery and medicine in the wards at the hospital.

Dr. W. Camac Wilkinson was the first Lecturer in Pathology, and he delivered a course of excellent lectures. He was very keen in imparting practical knowledge. Dr. Wilkinson was afterwards Lecturer in Medicine for many years. He succeeded Dr. Cox.

We shall never forget our lectures in Medical Jurisprudence and Public Health. The lecturer was a kind and jovial old Irish gentleman, formerly a Surgeon in the Navy, and he flooded us with text-books, and we were non-plussed

at times to know who was right, e.g., "Tidy says it does, Taylor says it doesn't, Casper says it does, but it doesn't."

In 1891 the first graduate in Medicine from Sydney University was appointed Medical Superintendent at the Prince Alfred Hospital, and Sydney graduates have occupied the position ever since. In 1896 the first graduate of Sydney University was appointed Medical Superintendent at the Sydney Hospital, and Sydney University graduates have occupied the position ever since. It is interesting to note that in each instance noted prior to the appointment of a Sydney graduate, the position of Medical Superintendent both at Prince Alfred Hospital and Sydney Hospital was held by a graduate of Melbourne University.

Genesis of the Medical Society.

Professor Stuart, knowing that the Edinburgh University Medical Society had been of especial benefit to the students, was intent upon starting early with our Medical Society, and he called us together on April 9th, 1886, in our little four-roomed building, when it was decided to start the Society at once. Executive officers and a committee were appointed. Professor Stuart was our first Honorary President, and Dr. James (afterwards Sir James) Graham, then Medical Superintendent at Prince Alfred Hospital, our first President. Rules and by-laws were adopted, these having been drawn up by a committee of management. It is interesting to note the names of the first office-bearers:—

Hon. President, Professor Anderson Stuart; President, Dr. James Graham; Vice-Presidents, Dr. Milford and Mr. Peter Bancroft; Hon. Secretary, Mr. Arthur Henry; Hon. Treasurer, Mr. P. L. Townley, B.A.; Hon. Librarian, Mr. Cecil Purser, B.A.; Committee of Management, Dr. A. MacCormick, Dr. Jenkins, Dr. W. C. Wilkinson, and Mr. L. E. F. Neill, B.A.

Dr. Wilkinson, Lecturer in Pathology, threw "cold water" on the scheme and would not accept a position on the committee.

Six meetings were held from May till December, 1886, and at these meetings papers were read by the following:— Dr. Scot Skirving (Lecturer in Clinical Medicine); Dr. Milford (Lecturer in Surgery); Hon. Dr. J. M. Creed, M.L.C.; Rev. Principal Kinross, of St. Andrew's College; and Rev. D. D. Rutledge, M.A., a fifth year student. Mr. Rutledge was the only student to read a paper. It is pleasing to note that prominent men assisted us in our first year of existence.

In the hon. treasurer's report it was shown that we finished the year with a credit balance of 12/6, and the following remarks occur: "It is hoped that subscriptions will come in greater number during the next year. None of the duly qualified members, except two, has pecuniarily evinced his interest in the Society."

During the next year of the Society's existence six papers were read, and four of these were by students. A paper on "Righthandedness" was read by Mr. Hinder, and one on "Female Dress," by A. E. Perkins, M.A. What an interesting paper could be written on "Female Dress" now!

The second year credit balance was £2/9/6, and of this amount £2/3/6 was the proceeds of the first smoke concert. This first smoke concert, in 1887, was held in the outpatients' waiting room at Prince Alfred Hospital and was a great success.

Recognition.

In the early months of 1888 the Society came to the conclusion that the Hon. Medical Officers at Prince Alfred Hospital, the only clinical school of the early days, were not attending regularly; nor were they interesting themselves sufficiently in imparting instruction to the students, and the secretary of the Society was instructed to write to the Board of Directors and acquaint them of this fact. This was done, and, no answer being received within a reasonable time, the secretary was instructed to write to the Senate of the University; and a clipping from the "Daily Telegraph," dated April 9th, 1888, reads as follows: "A meeting of the Senate was held on Monday last at the rooms of the Royal Society. . . . A letter was received from Mr. Cecil Purser, describing himself as Hon. Secretary of the Sydney University Medical Society, urging upon the Senate 'the necessity that exists for more regular attendance, both as to day and hour, of the Hon. Medical Officers of the Prince Alfred Hospital; and also of the necessity for the Hon. Medical Officers giving more bedside instruction than they do at present.' After considerable discussion, in the course of which objection was taken by the Chancellor, to any recognition by the Senate of a 'Society' amongst undergraduates which had received no authorisation from it, and was not regulated by any by-laws of the University as in the higher case of convocation, Mr. Justice Windeyer moved that the letter be sent to the Board of Directors of the Prince Alfred Hospital for its information, and this was eventually carried."

The committee of the Medical Society, upon reading this report in the daily papers, met and decided that a letter be sent to the Senate, requesting that "the Society would be glad, should the Senate be pleased to recognise it, firstly, by allowing it to retain the word 'University' in connection with its name, and, secondly, to allow a notice of the Society's objects, etc., to appear in the Calendar in the usual manner." A reply was received by the hon. secretary on April 17th, 1888, from H. E. Barff, Registrar, to the following effect:— "I have the honour to inform you that the Senate has decided to recognise the Medical Society, which you represent, by granting the two requests which you make, viz., (1) to

allow it to retain the word University in connection with its name, (2) to allow a notice of the Society's objects, etc., to appear in the University Calendar."

The "Echo," an evening newspaper of that period, in commenting upon the Senate meeting in a paragraph headed "The Sydney Sawbones," said that the Sydney University Medical Society had "scored a point," and ended the article by saying:—"The directors of the Prince Alfred Hospital will, no doubt, inquire into the complaint, and those ardent youths who are so anxious to obtain knowledge will have every facility afforded them of qualifying themselves to experimentalise with the bodies of their sick fellow creatures."

From this we glean that early in its career the University Medical Society took up the cudgels on behalf of the students, and we became a Society recognised by the Senate.

Regarding the complaint about the Hon. Medical Officers, the same complaints have been made on more than one occasion since, and even now there are some delinquents, at times, among the Honoraries.

The Society's First Minute Book.

It may be interesting to know that the first minute book of the Medical Society, an old exercise book costing 1/-, is now bound and is zealously guarded in the Fisher Library as the oldest minute book existing of any University society or club.

The Medical Society has continued to be more or less vigorous up to the present time and has been of especial value to students.

Miss Iza Coghlan was the first lady student to graduate in Medicine; she was the first lady student to be elected a member of the Medical Society in 1888. Miss Dagmar Berne was the first lady student in Medicine, and started with our year in 1886, but she went home to Glasgow to graduate.

This is a somewhat discursive and more or less scanty history of the early years of the Medical School, yet it may prove to be of some interest to the students of the present day. We had our trials and difficulties, but some of the early graduates have managed to weather the storms for many years, and most of them have tried to be of some use in the world.

Doctor: "What you need, my dear young lady, is a little sun and air."

Sweet Young Thing: "Why Doctor, how dare you! Why, I'm not even married."

The Sydney University Medical Society and Its Place in Medical Education

By C. G. LAMBIE, M.C., M.D., F.R.C.P., F.R.S.E.
Bosch Professor of Medicine, University of Sydney.

THE year 1933 bids fair to prove a landmark in the annals of Medicine in Sydney. It is not only the year in which we celebrate the Jubilee of the Medical School but, with the opening of the new Medical School, it should mark the beginning of a new era in the history of Medicine in this State. Is it not also an occasion upon which the Medical Society might take stock of itself, and may we not express the hope that it, too, may at this time take on a new lease of life? As a former president of the oldest students' medical society in the world—the Royal Medical Society—may I be permitted to throw out a few suggestions?

What place does the Sydney University Medical Society occupy in medical education? In this city there exist several other medical societies—the British Medical Association, the Medical Science Club, the Association of Physicians—but all of these are extra-academic and they are intended to provide for the needs of the more senior members of the profession. On the other hand, the Sydney University Medical Society, if it is to justify its existence and subserve any specific purpose, should cater for the younger generation. To discharge its function properly it ought to be run entirely by and for undergraduates or newly fledged members of the profession. For a society to keep alive it has to be active—that is, it should call for exertion on the part of each one of its members. The central feature of the activities of a medical society of this kind should be the holding of medical debates, and it goes without saying that these debates ought to be conducted by members of the society. Ability to speak in public is becoming more and more important for members of our profession. The doctor is no longer merely a private advisor, but he is called upon to be a public counsellor, and it is in the highest degree desirable that the profession should be able to express its views clearly through the mouths of its members. The power of speech may also contribute to professional success, and its cultivation in an undergraduate or fledgling is a most important preparation for after life. Debate also tends to make men more teachable, less dogmatic or opinionated, and, while it sharpens the wits, it helps to smooth off the sharp edges of one's character. The debates of a medical society should be conducted with due dignity and formality, otherwise they

tend largely to fail of their purpose and run the risk of degenerating into a "rag." To conduct meetings of this kind is not only a test of character, but a useful training in correct procedure. Your officers should rise through the ranks of secretaries, treasurers, librarians, and vice-presidents to the honoured position of senior president. Men who had passed through such a mill would have done much to prove their qualities of leadership, especially in the conduct of public affairs. The meetings should be held regularly—perhaps on Friday evenings once a fortnight—and it may be possible to find a suitable place for them in the new Medical School. A fine should be imposed upon ordinary members on the active list who fail to attend a prescribed number of meetings. This should not only help to keep members up to the mark, but might be a source of revenue. In any case, passive members are of little use to a live society.

The meetings might commence with private business and then proceed to public business. The public business would begin with the showing of specimens and interesting cases, much as you do now at your clinical meetings, or there might be something of the nature of a clinico-pathological conference—that is, the case history is first read, giving the main points, questions are asked and tentative diagnoses are made, then the specimens are demonstrated, and finally the whole case is discussed and summed up. Then should follow the main business of the evening—the reading of a dissertation by one of the members of the society, followed by discussion thereon. Every member, after a due lapse of time, should be required to read an essay or dissertation upon some medical subject. It is a common criticism—one which is to some extent justified—that students are too receptive and not sufficiently productive. The writing, reading and discussion of a dissertation should therefore be a salutary antidote to the passive absorption of the teachings of your seniors. Indeed, your seniors should be the very people who should be discouraged from attending your meetings. They would be sure to exert an inhibitory influence, or to perpetuate that passivity which it should be the function of the society to counteract. Instead of inviting senior members of the profession to give lectures (as though you had not already had a surfeit!) or addresses and to write articles in your magazine, you should reduce these addresses to an absolute minimum—preferably to an inaugural address at the beginning of the academic year by some distinguished person—and substitute the writing and reading of dissertations by students and recent graduates. The society should provide a platform for budding members of the profession to air their own views freely without the fear that their deliverances may be "held in evidence against them" elsewhere. What a splendid

PROFESSOR C. G. LAMBIE,
Bosch Professor of Medicine.

thing it would be for every student, at least once in his career, to choose and think out a subject for himself and to set down his ideas in an orderly fashion! He may not have anything very original to communicate, but he would at all events have the satisfaction of knowing that in at least one subject he had attained some degree of clarity and thoroughness of knowledge. He would, in the process of preparing a dissertation have practise in the method of looking up literature, of learning where to find information, and he would have an opportunity of gaining an insight into the mysteries of the Index Medicus and the Quarterly Cumulative Index Medicus. Who knows but the dissertation might be the forerunner of a brilliant M.D. thesis! Some of the dissertations submitted to the Royal Medical Society by men such as Richard Bright, J. Y. Simpson, Robert Liston and others have contained the germ of future epoch-making researches. The obligation to write a dissertation might conceivably scare some of the weaker brethren, but the society would not lose a single man who was worth his salt. There should be ample time for writing a dissertation, either during the final year or during the period of residentship. A member having duly read his dissertation and had it accepted by the society, should be eligible for election as an extraordinary member, thereby being freed from compulsory attendance and fines.

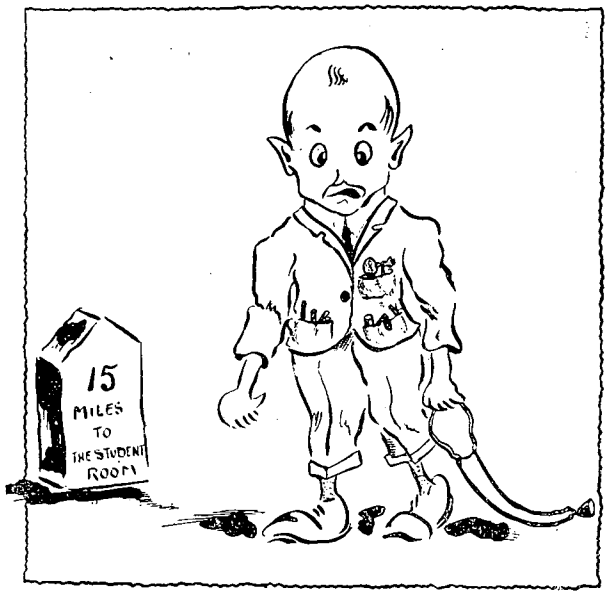
Another important activity of the Medical Society is the building up of a students' library. This library would be all the more important if the writing of dissertations became a practice. It should contain the latest text-books, monographs and standard works of reference to which anyone may turn for information, or for classical descriptions with which to compare interesting cases, etc. It should also, if possible, contain some old books—for example, the publications of the New Sydenham Society—from which it may be gleaned that there are few things new under the sun, and that exact scientific writing is not incompatible with literary charm.

Lastly, there is the social side of the society's activities. The pretexts for the holding of an annual ball are that it is becoming a "society event," and that it is a means—withal a very wasteful and ineffective means—of raising funds. As matters stand now, it may well be asked of what educational or even social value it is to members of the society, and what part they actually play in arranging it? If members embraced the opportunity of themselves organising the function, as well as merely participating in it, it might have some claim to attention as an activity of the society. Members of the society should themselves take in hand the organisation, either of a ball or, preferably, something with a more academic flavour, which would afford practice in the art of conducting public functions. An annual dinner, en-

tirely organised by the society, to which some distinguished guests, together with representatives of sister medical societies, of the University and of the sister professions, were invited, and at which the president, vice-presidents and other officers of the society would act as hosts and be required to make the necessary speeches, would be an event much more worthy of the society.

As a sincere well-wisher of the society, I hope that in the years before us it may serve in increasing measure to fulfill a useful function in the medical school and prove to be a real force in the academic life of the University. If I have ventured to make a few criticisms, I also trust that some of my suggestions may prove of value and that they may bear fruit in the days to come.

"WHILE WE WERE PASSING THROUGH MEDICINE."



No. 7.—Walks the wards as a "Bird of Ill-omen," a "White Ant," etc.

"Hospital Birds"

By JOHN HOETS, M.B., Ch.M. (Edin.), F.R.A.C.S.,

Hon. Medical Officer in Charge, Department of Orthopaedics, Sydney Hospital, Hon. Orthopaedic Surgeon, Lewisham Hospital.

HE is a queer creature with a mentality that is hard to understand. He is not an ordinary malingerer as the object of his scheming is not financial gain in the way of compensation or damages. At times it is difficult to find any object except to gain admission to hospital—hence his name. He turns up in the out-patient department not infrequently and is, as a rule, well behaved and respectful in his attitude to nurse, student, and doctor. He gives his history clearly and answers questions with intelligence. He usually presents a symptom complex which is interesting and frequently puzzling. He has submitted to operation on previous occasions and is nothing loth to do so again, and this attitude towards operations may raise the first suspicion in the mind of the examiner that all is not quite straightforward. He may become a little less sympathetic and his questions more sharp and searching. He tries to trap the patient into some statement which will not tally with the previously given history but fails. The "hospital bird" is wary and has been through the mill many times, so often indeed that in his own line he is a specialist. He knows the significance of certain symptoms even better than his examiner, who may now be furiously trying to recall passages from his favourite textbooks. The "bird" remains calm and unruffled, adopting the attitude of the patient sufferer, willing to follow the advice of the good doctor in any way he may suggest but managing, at the same time, to convey the impression that he knows much more about it all than the doctor does, and that unless he is admitted something rather horrible may follow.

He generally is admitted and having attained his object proceeds to "put it across" the physician or surgeon until he is spotted and discharged. In the meantime, and this is the peculiar and true stigma of the "hospital bird," he will often have submitted cheerfully, or at any rate without objection, to one or more extremely unpleasant procedures in the course of investigation or treatment. On discharge he will go straight to another hospital and repeat the performance.

The following are a few examples of the genus:—

Case I: A young woman was admitted under the care of a surgeon, complaining of severe abdominal pains and a plain simple story of having swallowed a hairpin which

slipped down her throat whilst she held several in her mouth. X-ray showed the hairpin low down in the abdomen, apparently in the small bowel. Laparotomy and very thorough search failed to locate the pin. X-ray again showed it in the same position as before, so that next week she was again on the table and anaesthetised. The wound was about to be reopened when the surgeon gently put aside his knife, swearing softly but quite expressively the while, and asked for a cystoscope. He found the pin!

Case II: This case, also a female but older and wiser, was an ex-nurse of about thirty-five years of age, who complained of pain in the right loin, and frequency of micturition. She gave a history of the passage of blood-stained urine, but X-ray was negative. (At the time the more recent methods of investigation were not in use.) It was decided therefore to explore the kidney. This was done and nothing abnormal found. Following the operation the surgeon had a very anxious time. The patient passed not a drop of urine by the natural channel, her wound broke down, and her dressings, judging by the odour, were soaked in urine. Suspicion was aroused and a watch set. The task of discovering a trick is, like many other things, left to the nurse. In this case it was noticed that the patient would not have her hot water bag more than about half full. This furnished a clue and examination of the water bag when sent to be refilled led to ultimate discovery. Her procedure was as follows:—She removed the wound dressings surreptitiously, kept the wound open with her finger nails, passed some urine into the dressing, and replaced it over the wound and then emptied her bladder into the hot water bag. It was her bloodstained finger nails which proved her undoing.

This patient had scars of several operations which had probably been performed under similar conditions.

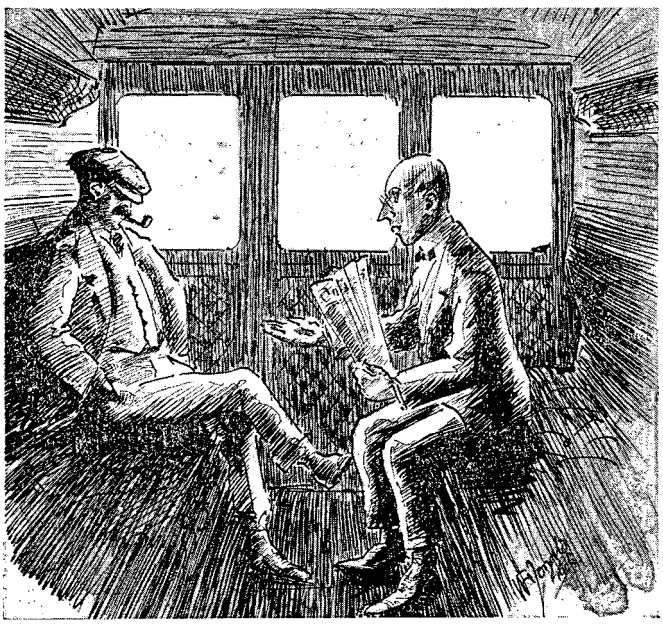
Case III.: Admitted for observation, a woman gave a history of passing urine which looked like milk. It did so not without reason, for after being a few days the centre of interest as a case of chyluria she was observed to carefully pour some of the milk from her porridge into the bed pan. Within a few days of her discharge a very interesting case of chyluria was admitted to another, not far distant, hospital.

Case IV.: A man of middle age with scars of previous abdominal operations, was admitted with the history of having swallowed a safety razor blade. The story was borne out by his vomiting the paper wrapper, and X-ray showed the blade in the region of the upper abdomen. Laparotomy was done but no blade was found. A second X-ray showed the blade in a somewhat different position so that he was

again prepared for operation and placed on the trolley bound for the theatre. His journey from the ward, however, ended in the X-ray room, where this time no blade was found.

He had simply swallowed the paper envelope and when about to be rayed, slipped the blade on to the skin of his abdomen. He was tricked by the preparation for the second operation, as he obviously could not take the blade with him to the theatre.

The foregoing notes are intended to remind readers of a type of patient which all, sooner or later, will meet. It is very annoying to be deceived by such, and very gratifying to catch one out. It is scarcely necessary to add that every other possibility must be very carefully excluded before diagnosing the case as a "hospital bird."



PYORRHOEA.

Excitable Passenger (who has been reading vital statistics): "Just imagine! Every time I breathe, a man dies!"

Uninterested Fellow-passenger: "You oughter chew cloves."

From Gay to Grave, 1893-1933.

By REGINALD DAVIES, O.B.E. (Mil. Div.), Chevalier de la Leg. d'Honneur, M.B. (Syd.), F.R.C.S. (Edin.), F.R.A.C.S.

Lecturer in Gynaecology, The University of Sydney,
Hon. Gynaecological Surgeon, Royal Prince Alfred Hospital.

THE strands of memory go ranging back through the changing years, bringing to me pictures, grave and gay, of my forty years' cavalcade in Medicine.

Forty years ago, Sydney University was nearly all proud front and very unimpressive behind. The Medical School was only about ten years old, and consisted of about half its present front, with the long central hall and lecture rooms off. Sydney itself—the Town Hall was only four years old—with its population of 360,000, its steam trams, on the St. Peters tram-line degenerating to horse-drawn trams on rails, its horse-drawn 'buses, its narrow streets, was a very different place from what it is now; a much nicer place to live in, because families in those ancient days still lived in houses to which medical and other students were asked, and where the daughters of the house could play the piano and sing like angels (or so it seemed to one's susceptible heart), but at the same time still retained a proper sense of curiosity as to what the moonlight would look like shining through the trees in the garden. It is possible that some of that curiosity still remains—but where are the moonlit trees?

From The King's School, I entered St. Paul's College, and one day, in March, 1893, approached with befitting humility, a small, much uniformed little man in the hall of the main entrance to the University building. Mr. Craddock he was, and he appeared to me much more important than any mere Mr. Barff or Mr. Dallen. Having been approved by Mr. Craddock—and a very nice and helpful little man he turned out always to be—I duly paid my fees and entered upon the study of snails, sections of pine trees, chemistry, and physics. With what high ambitions and determinations to excel—alas! not altogether realised.

I can still see Professor Haswell entering the lecture room; the door would open very quietly, the little man would walk quickly to the desk, and as he reached it he was in full stride. One hour's solid writing with whatever abbreviations you could think of, and two hours afterwards with the book to make sense out of what you had written down. I suppose it was excellent memory training, but I am ashamed to say that Zoology and Botany, as then taught to me, have ceased to be, and I really don't care a tinker's curse if the snail has a nervous system or not. I know he eats my plants just the same.

In Chemistry, some of us worked well, though other men did much to disturb our efforts. Dr. John MacPherson will remember the day he and others were appointed a small committee to find the man who took a cat with jam tin attached to tail into class, and released it at the top of the lecture room. Professor Livesidge was furious, N'Edward N'Upton was at his wit's end, and we were all thrown out "for the duration." However, the Professor was the kindest man imaginable, and "two quid" a head satisfied when the culprit finally owned up. The culprit was very unpopular. My own shining was done in the practical work with dear old Schofield. One day we were producing iodine vapour: the mixture, if I remember rightly, was potassium iodide, manganese dioxide, sulphuric acid, water in long-necked glass bottle to be gently heated over Bunsen burner. Soon I had a full head of iodine vapour issuing. Said "the bird" in front of me, "You ought to put something on that for the vapour to condense on." I have gathered since that he meant me to hold something cool over the top of the bottle. Without thinking, I **corked up** my bottle, took the Bunsen in my hand, and held it under the bottle. Came a noise as of war, total blindness, yells for Schofield, orders to open my eyes, failure to do so, strong arms, a full sink, and yours truly upended head down into it. That diluted the sulphuric all right, nearly drowned me, and I came up spluttering. Oh, my brothers, what a sight was there! I had no eyebrows, the front of my waistcoat and shirt came clean out, and poor Norman Kater's new grey flannel pants had no seat to speak of in them. I have never heated up a sealed bottle since, and doubt if I shall ever do so again; though I heard of some "gay young things," not so very long ago, who heated up a tin of sausages without opening the tin first, with somewhat similar result. I only tell the story against myself because I was only a poor bush lad, and perhaps there may still be some unsophisticated lads like me coming from the bush to medicine.

We had a class examination in Chemistry at the end of the final term. To show you how well we all knew the subject, John MacPherson wrote for half an hour, then, as he couldn't remember any more, tweaked his nose till it bled and went out, to the sympathetic sorrowings of the Professor. He got 18 per cent., Kater got 11 per cent., and the rest of us got 0 each.

In Physics, we had the terror of being lectured to by Professor Threlfall, and the delight of being demonstrated to by Mr. Pollock. Pollock's language was a delight. I wonder is the machine for estimating Joule's equivalent (whatever that may be) still in existence? You put in water and turn a handle. The answer is not a lemon, it is "42 million ergs," or thereabouts. The machine, I think,

was incapable of getting nearer than 20 million odd to the correct answer, and when Rowlands, an engineering man, and I, quite honestly got an answer of about 40 million, we were greeted by, "How did you get that?" "Worked it out, sir," said we. "Oh! you worked it out, did you? You b——y well faked it. That's how you got it." And away he went.

THE FIRST RESIDENT MEDICAL OFFICERS WITH DEGREES FROM SYDNEY UNIVERSITY.

Left to right: Dr. J. W. Hester, Dr. H. V. C. Hinder, Dr. Arthur Henry, Dr. J. F. McAllister (Supdt.—Edinburgh graduate), and Dr. A. E. Mills.

I wonder does McEvoy remember the day he chipped Pollock's "best adjective prism." The Professor had a humour of a different type. Seeing me trying to read the barometer one day, he spent ten minutes fruitlessly trying to explain it to me. Then, "Come in here," he said, "I'll teach you

something really useful." Into a room full of glass tubing and breakables we went. "Just stand over there," he said, backing me up against about a mile of glass. "I want to throw this lump of lead, attached to this cord, over this beam. As it comes down you catch it, and stop it hitting that glass." Then he heaved the lead about twenty feet into the air, and it came to earth at my feet, so fast that I did not catch it, but without breaking anything. Said I, "I'm glad I didn't break anything, Professor; but I couldn't catch it." "No," he said, "I didn't think you could, but I hoped it might hit you before it hit the glass." God rest his soul. I've always been so glad it didn't hit the glass. The Professor did great scientific work during the War, I believe.

And so, to second and third years, which I found much more interesting and less dangerous.

In those years, the lectures of the Dean, Sir Thomas Anderson Stuart, as he became later, were the best I have ever listened to. In their matter they were clarity itself, and the manner of delivery facile, with never a hesitation, and never an inaudible word. There is no doubt that he was a great man, a great lecturer, and a great Dean. I think in all his actions he had the future of "my Medical School" in mind, and if some of us thought that at times his actions were not such as one would have expected from a really great man, well, perhaps we were wrong. To the young "inveterate smoker" of to-day, to have a Dean constantly about the School who greeted you with, "Smoking in my Medical School? Two pounds! Pay it to the Registrar in the morning," would have been a real menace.

The manner in which he faced the sentence of death passed upon him by his surgeon, and the courage with which he stood up to the agony of his illness, were worthy of a great man and a great Scotchman.

In practical Physiology, we had Charles Martin, since then, of course, become very famous. I saw him only the other day, passing on his way back to England. I was naturally very delighted when he said to me, "Well, Reg., how are you?" Not so bad as an effort of memory after about thirty years. But then, I did very well in Physiology that year.

In Anatomy, of course, "Jummy" Wilson. My God! how frightened I was of that man—really the kindest of souls. I never found the word "Well?" repeated three times, pitched a little higher each time, in any way conducive to a regathering of scattered wits.

Grafton Elliot Smith lectured to us on the anatomy of the central nervous system. That cured me of any desire to know anything about the central nervous system. There seemed to be about 5,000 different things in the brain, and

he knew them all. He did other things well, too. He sang "The Yeoman's Wedding Song" magnificently. He has, of course, long been famous. It was interesting to hear Sir Charles Martin say that there are more Australians holding high teaching offices in England than English teachers in Australia.

Then through fourth and fifth years to graduation, somewhat haltingly, because I was unable to eradicate an incurable penchant for singing (mostly love songs, I expect,

THE GAY 'NINETIES.

though it is so long ago that I have forgotten), and all the waste of time that went therewith. Conducting Commem. songs, singing at smoke concerts. Oh! the good life.

In my fourth year, I established a football record. (I had entered St. Andrew's College by this time to be with my pals Aubrey King, Vin. Savage, and Archie Blue.) There were only sixteen of us in College, and as I was heavier than Teece, I was converted into a forward, and my God! how

they did train me. In the match (won by three goals to nil, all secured by our full back, Aubrey King) I, for the first and only time in my life, secured the ball. While wondering what to do with it, 14 stone of poor old Claude Browne removed me from the earth and the ball. After that, I came to the conclusion that football was not my game.

In the fifth year, there were the delights of lectures in Medicine from Dr. James Cox. A little out of date, you modern lads would think, with his "Typhoid fever, gentlemen. They say it is caused by strange bodies called micro-organisms! I don't believe in them"; his wonderful, handsome old face, and kindly disposition, and a total incapacity to plough anyone. I liked him well, because he would look round the class, say "Ah! Mr. Davies is here to-day. We'll mark the roll." My father used to send him a brush turkey for his Christmas dinner for years! And his picnics—drags to cart the lads, and "beer by the cask." I stayed two years with him, so I had two of them, one to Long Bay, one to Palm Beach, and a headache for a week after each.

In Surgery, Sir Alexander MacCormick, one of the greatest surgeons of all time. It is a wonderful tribute to his influence that so much that was his in knowledge and technique survives to-day in the work of our own general surgeons.

In Gynaecology, we had Dr. Foreman and Dr. Thring. The one placid, imperturbable, sure of himself, a master craftsman who always knew where something was not, even if he didn't know where it was; the other irascible, but what a good chap, what a good friend, what a perfect consultant; in his work deft, quick, the perfect anatomist—woe betide the assistant who crossed his hands or got his clumsy fingers in the way. It is a delight to me to think that both these, my teachers of so long ago, are both alive and hearty to-day, and I am sure that, if they read what I have written of them, they will realise that I write it in all sincere and affectionate remembrance of what they did for me.

In Clinical Medicine, of course, there was the evergreen Scot-Skirving, with his "I do beseech you, gentlemen, to give this your most prayerful consideration," and so on. The perfect clinical lecturer; I doubt if there are any like him to-day.

Ploughed in "Insanity and Eye," I finally graduated in March, 1901. It was then I realised what sauntering through Medicine had cost me—a house surgeoncy with all its possibilities at Prince Alfred or Sydney. Perhaps here it is in place to say to the men who are now going through, "The years of your life slip by all too quickly. There is so much to do and so little time to do it in. Play if you can and desire to, but see that play does not become the master of your soul. Opportunity is a very shy bird. It flutters round

you, but if not seized forthwith, is apt to fly away, never to return."

However, by great luck, there was a vacancy at the old Children's Hospital, then situated in Glebe Point. There was wonderful experience under Dr. Clubbe, Dr. Angel Money, Dr. Jenkins, Dr. Macdonald Gill, and Dr. Littlejohn. There was a special diphtheria cottage across the road. The opportunities were wonderful, and as it so happened I was, I think, the last of the single house surgeons. There were never afterwards less than two. Now the Hospital is the largest children's hospital in the British Empire. A year there, then to London, where, by two fortunate circumstances, I became first house surgeon, later Superintendent, of the Queen Alexandra Hospital for Children in Hackney Road. Of my experiences there, and my obtaining the Edinburgh Fellowship, there is nothing interesting to relate.

Returning to Sydney in 1903, I commenced practice in Newtown in 1904. Anent the purchase of practices, there is one bit of advice I can give. Go to a good solicitor and don't pay over the purchase money unless he is looking over your shoulder. I was bluffed into paying up the balance on an agreement, one clause of which provided that "a lease should be obtained for me of all those premises at present occupied by him (the vendor)," or words to that effect. A few days after paying over the balance, **not** in the presence of my solicitor, I found a man digging out the turf on my lawn. When I expostulated, I was told he had bought the lawn, and was going to build a bulk produce store on it. It cost my poor old father another £750 to buy back the lawn—and I had no legal redress.

1904-1909 inclusive, slogging into lodge work in Newtown. Very different fees to nowadays. 18/- and 16/- per annum per lodge member, down to 14/- for the young girls' lodges. Confinements one guinea. Anaesthetics one guinea. Operations, anything you could get. At one stage I had 1,600 lodge members, and I think they were all extra fertile. When measles or 'flu struck Newtown, there was no time or use in going to bed.

In 1909, with misgivings, I ventured into Macquarie Street, and, on the staff of the Women's Hospital and St. Vincent's, gradually began to gather a practice.

Came the War! What a paralysing monster of stupidity. In September of 1914 I volunteered, was promised a Majority with the next Australian General Hospital to be sent, and waited. In February, 1915, I wrote to the French War Office, offering to volunteer for the duration of the war. My offer was accepted by cable, and on May 1st, 1915 (my birthday), I left for France. Then the fun began. I travelled 14,000 miles to help the French. I reached the French War Office, met the champion liar of the world, who greeted me with open arms, but I am glad to say did not kiss me, promised

that my commission would be ready next day or the day after. Six weeks later, I was still waiting. In despair, I went to London to try for an Imperial commission, and called upon Sir George Reid. Said Sir George: "You're just the man I've been looking for. The French want to know who you are. They think you might be a spy." Back to Paris that night, and commission duly ready next day. July 7, 1915, I became a fully-blown French officer (Medecin-aide-Major de 2me classe—2nd Lieutenant), pay, £8 a month and keep yourself. They gave me jolly good jobs, though. A 300 bed hospital at St. Rome, near Toulouse, as head surgeon. There I was able to refurbish all I had ever known of bone surgery in my old Children's Hospital days; and also to learn the two first rules for officers in the French Army, viz.:—

1. Never do to-day what you might be able to find somebody else to do for you to-morrow.
2. Never obey an order until you receive the counter-order.

From there to Chalons sur Marne, the site, I think, of the most heroic action that I ever heard of in the war. Daily, at noon, a German airman in a very fast machine bombed Chalons. No French plane could pace him. One day, a flight sergeant stripped his plane of machine-gun and every blessed thing he could get off it to lessen its weight and make it faster. Went up. Was fast enough to do it. And purposely collided with the German. They both crashed to death.

From Chalons sur Marne to Villers Cotterets, a village about 16 miles south-west of Soissons, and about 7 miles behind the French lines at that point. Here I was at first second, later first surgeon to the Hospital Temporaire 22, of about 3,000 beds, full capacity, and by this time having reached the rank of captain, with about 350 francs (at 25 to the £1) pay per month, and also keep myself, I was appointed Chirurgien Chef de Secteur, which imposed upon me a supervisory authority over the 7 or 8 hospitals, including the Scottish Women's Hospital, in my area. This was a very good job and imposed a very heavy responsibility. I was given to understand that I was the only foreign medical man who had ever held full rank (as a volunteer) in the French Army in the zone of the armies, and been given authority over French surgeons. It secured me the Legion of Honour.

As to the treatment of the wounds, there were two schools of thought. The disciples of the Carrel method, continuous irrigation with Carrel's Solution, later modified by the English to Dakin's Solution; and the disciples of the Menciere method. There was a small special hospital given over to the Carel method quite close, and we were all directed there in groups to learn all about it. We found 10 patients

and 11 nurses, and it was, of course, quite evident that for an enormous sort of advanced base hospital such as ours the method was impracticable. My "nurses" consisted of two blue nuns, two Australian nurses, two English V.A.D.'s, one of whom was a journalist, who after instruction gave anaesthetics in a masterly manner.

The method of Menciere (Menciere was a surgeon of Rheims), was a solution of Friar's Balsam combined with a lot of other aromatic smelling substances. Gauze was dressed into the wounds, soaked with "solution de Menciere," after which they were packed up in plenty of cotton wool and allowed to suppurate; and how those wounds did smell! I can still see old Braquehaye, my predecessor at Villers (Professor of Surgery at Tunis, if he is still alive), entering his wards with nose raised like a pointer dog. "Ah! the lovely aromatic odour," he would say. To me, they smelt like an uprooted cemetery.

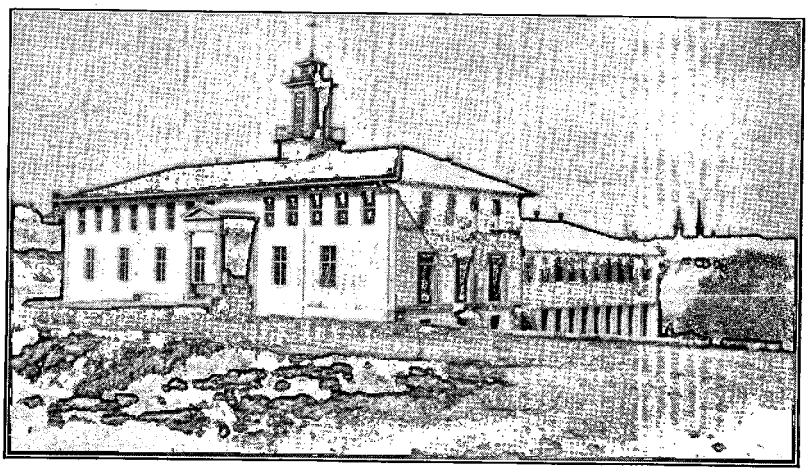
I found nothing so effective as gauze boiled in soap solution and rubbed to a lather with Liq. Sodae Chlorinatae, 1 in 14. The wounds cleaned like a charm, and the soap prevented the gauze from sticking. Little Miss Brown (that was her real name, too)—I can still see her giving anaesthetics. She had no French to speak of. The poilus' language, when going under the influence of ether, was apt at times to be lurid. I used to hear Miss Brown, nothing daunted, crooning all the latest words she was learning back to them. If she had only known the meaning of some of those words!! Our other helpers were broken-down taxi-drivers and people of that sort. I put Louis, my theatre orderly (supposed to be the Mr. Booth of the place), to watch one poor chap one night, because he just had a chance if his stimulant was kept up to him. As soon as I left, Louis drank all the stimulant, went to sleep on the next bed, and when I went in at 3 a.m. and woke him up to ask how the wounded one was, he said, "Il dort bien, Monsieur le Major." He did sleep well. He was dead; but Louis didn't know it. It was the same sportsman who, in a very busy push during the Battle of the Somme, took the tubing off an immense irrigator I had, which took the combined efforts of the staff and a copper in the back yard to sterilize, pushed in the bung of a wine cask, inserted the tube, and, lying flat on his back, nearly syphoned the contents inside himself. It took him a week to recover.

Although we were bombed fairly regularly at night, Villers Cotterets, being very much sheltered by forest, was apparently hard to hit, and, in the two years I was there, I think only one woman and one child were killed. One night a Zepp. dropped a torpedo which landed about 70 yards away from my house in a stack of timber in the station yard. It is not necessary to say that it did not go off. When it was found next morning, the whole of Villers Cot-

terets took to the woods while the engineers removed it. My own sentiments were that they could have the job. I found I needed exercise myself that morning.

From Villers Cotterets, just before the German break through, I was sent to Clermont Ferrand in the centre of France. So hopeless was the confusion when Gough's 5th Army broke that wounded British "Tommies" came down there 300 miles south-east of where they had fought. When it seemed possible in 1918 that after all we might be beaten, I asked permission to resign my French commission to enter the English Army, and on July 7th, after exactly 3 years' service with them, I left France and joined the R.A.M.C. on August 1st, 1918, being sent to Shepherd's Bush and later Brighton, where I stayed doing repair surgery till January, 1920.

In March, 1920, I again took up the threads I had dropped 5 years before, and I will never forget the agony



SCHOOL OF PUBLIC HEALTH AND TROPICAL MEDICINE, UNIVERSITY OF SYDNEY.

of those first three years. In them, one had that dreadful restlessness that cursed the majority of returned men. In the three years I paid £606 in rent and made gross £600 in practice. However, came the Assistant Staff at R.P.A.H.; later, the Lectureship to the University; and prospects looked bright. Came 1929 when, while on a trip to England, I received a cable from my brother, "Bottom fallen out of wool market. Better return." Since then, my experience has been that of everybody else—the smaller the income, the higher the taxation.

Looking back then over the last forty years of my life, what are the things I would like to have done differently?

First, my academic career—too slack! It is hard for a

youngster, full of beans, to look ahead. Nowadays, I think students are more amenable to discipline; more, if I may say so, regarding their University career as a continuation of their school days. Competition, of course, largely accounts for that. It is necessary to be well up to get a job. Also, academically, I think they are worked too hard. Do the corridors of St. Andrew's College, first floor, ever run three inches deep in water nowadays? Is the "complete do" forgotten? Does anybody ever fill his pipe like Vin. Savage used to do?

From the day that I graduated, I don't think there is any single thing except the war that I would change, had I my opportunities over again. The war cost me many friends. It took eight years out of my earning capacity, and so has left me financially poorer; but it also cemented more strongly some of the ties of affection I hold with men whom I delight to think honour me with their friendship, and it probably secured for me the University position I now hold.

Inside me, however, the war, as all wars to older and thinking men must do, has done me a hurt. I think too often of the splendid chaps who are gone for such a useless reason: that induces sadness, and sadness is very bad for one who is within sight of the day when he must retire from his Lectureship and his Public Hospital appointments. Yet, on the whole, I feel that the forty years' cavalcade that began so lazily and so joyously, that moved serenely through post-graduate and general-practice days, that moved slowly but surely towards a competence before the war, and after that interlude, moved on to an honoured position in the medical life of my University, and of our city, has completely satisfied my ambition.

1893 was a year of financial crisis. Banks smashed in a day, and wealthy people, big pastoralists, anyone owing big mortgages to banks and financial institutions; indeed, practically the whole community, woke up to find themselves ruined. The crash was a very different proposition, however, to the present world crisis. It was caused fundamentally by land speculation and bad banking. The banks had had big deposits of English money, and had lent not wisely but too much on poor security. Then, as lately in the Savings Bank smash, the fools who constituted the "rush" only cut their own throats. The Bank of New South Wales was able to stand up to the debacle through the courageous action of the Premier of the day, Sir George Dibbs, who announced that the Government stood behind the Bank, and who made private bank notes legal tender for six months. People rushed to the Bank's head office, took out their money, walked across the street to the Barrack Street branch of the Savings Bank, and deposited it there. At night the cash was surreptitiously replaced in the Bank of N.S.W. to meet the next day's rush. Quite immoral, but

effective. Fortunately, my father was a constituent of the Bank of N.S.W. and was able to carry on, though his next door neighbour (whose property later on, with the return of prosperity, changed hands at £30 per acre), was sold up by the now defunct A.J.S. Bank for £3 per acre. All of which goes to show what a tricky thing bank finance is, and how wise it would be for politicians with a desire for getting something for nothing, to leave the property of you and me, as represented by the surplus value of what we own over and above what we owe to the banks, alone.

In 1933, we are staggering to a recovery from the world smash. For the younger men, of course, all is well in God's beautiful world. Troubles will come, pessimists talk of another war; but time cures all things, and there is nothing surer under the sun than that the present condition of world desolation will change to prosperity again in a few years' time.

And so I reach the autumn of my days in the hope that it will be a nice, long, balmy autumn, followed by a very mild winter, seasoned by enough work to keep me warm until the day comes when

> The moving finger writes;
> And having writ,
> Moves on; nor all thy piety nor wit
> Shall lure it back to cancel half a line
> Nor all thy tears wash out a word of it.

"WHILE WE WERE PASSING THROUGH MEDICINE."

No. 8.—And finally graduates and becomes a Resident.

Blood Pressure Readings and Their Interpretation.

By C. BICKERTON BLACKBURN,
O.B.E., B.A., M.D., Ch.M.

Introduction.

IN reviewing the progress of medicine during the last fifty years, one is struck by the number of mechanical aids to diagnosis that have become so much a part of the ordinary stock-in-trade of a doctor that it is perhaps difficult for a recent graduate to realise how his predecessors managed without them. As an example might be quoted the sphygmomanometer which is to-day so much depended upon for the estimation of the blood pressure that it might well be thought that without such an instrument the unfortunate physician in 1883 was unable to recognise the presence and significance of abnormally high or low blood pressures.

So far, however, is this from being the case that it is probable that, having to rely entirely on his own highly trained senses, he appreciated the significance much better and arrived at a much more reliable diagnosis and prognosis than is often the case to-day when, only too often, a blood pressure reading seems to be accepted as in itself a diagnosis and basis for treatment. It is because I feel that there is a growing tendency to allow the findings of the sphygmomanometer to replace instead of amplify those obtained by careful clinical observation that I propose to discuss the general question of blood pressure readings and their interpretation.

It is apt to be forgotten that, whether of an approved standard or not, the blood pressure at any given moment represents the best attempt that the circulatory apparatus can make to overcome the various difficulties with which it has to contend, and that any attempt blindly to alter the figures recorded by an instrument without painstaking efforts to envisage the difficulties may actually place the patient in a position still more disadvantageous.

Physiology.

It will be as well perhaps to review very briefly what we know of the factors regulating the pressure of the blood in the circulation. Strictly speaking, the "blood pressure" means the degree of tension under which the blood is maintained within the vascular system. Since rapidly flowing fluid encounters greater resistance than that moving slowly, the blood pressure is highest in the arteries, much less in the veins and very low indeed in the capillaries. Two factors influence the blood pressure—the amount of blood

ejected from the heart when it contracts, and the resistance this blood meets in the tubes through which it flows. The influence of increased cardiac output in increasing blood pressure is particularly obvious in the marked rise in pressure that occurs in health with exercise. Equally familiar is the fall in pressure that occurs when the output is reduced in myocardial failure. As a useful correction to the popular idea that raised blood pressure in itself is a potent source of damage to the vascular system, I would remind you, in passing, that, though in hard working labourers the blood pressure during a great part of the twenty-four hours is kept mechanically at a very much higher level than that of those whose occupation is sedentary, yet the incidence of premature vascular disaster is shown statistically to be very much higher in the latter.

The peripheral resistance is chiefly met with in the innumerable small arteries in which the flow of blood is still rapid: in health the measure of this resistance is regulated by the vasomotor centre in the medulla, and this centre is in turn largely influenced in its activity by the pressor and depressor stimuli which pass to it from the cardioaortic area and the carotid sinus. With such an admirable reciprocal arrangement, it is easy to see why in health an extremely even blood pressure is maintained, such variations as occur being conditioned by the varying needs of the body.

Pathological Conditions.

Under pathological conditions, however, wide departures from normal standards of blood pressure are met with. Thus we find increased cardiac output in aortic regurgitation when the hypertrophied left ventricle has to keep on returning the extra blood that has regurgitated since the last systole. It is worth noting, as an illustration of the cooperation between the heart and the vasomotor centre, that in this disease the arterioles are unusually relaxed to help the flow so that a low diastolic is as characteristic as a high systolic pressure in aortic regurgitation.

Increased peripheral resistance is most notably met with in thickening of the interior of the arterioles, and there is a tendency, when increased blood pressure is met with, to assume that this is the cause, whereas it is actually only one of many causes. When present and generalised it will be liable to restrict the blood supply to the centre itself and so a vicious circle will be established and the centre will put out constrictor influence in order to raise the blood pressure and thus get a better blood supply itself. That there is always an element of vasoconstriction in hypertension associated with arteriolar disease can be readily shown by the temporary fall in pressure obtainable by the use—useless though it may be therapeutically—of vasodilator drugs. That the vasomotor centre does raise the

general blood pressure when its blood supply is curtailed is best illustrated by the rise of blood pressure that takes place when the flow of blood through the brain is impeded by local compression as by a tumour and especially by haemorrhage. As the resulting anaemia of the vasomotor centre increases, the blood pressure rises to augment the flow of blood. You are all aware of how disastrous it would be to attempt to lower such pressure by any means other than removal of the local compression. Time will not permit of any attempt to discuss the many factors that may lead to alteration of cardiac output or influence the vasomotor centre, but I would remind you how readily the centre responds to emotional stress, especially fear. Adequate recognition of this will save us from unduly alarming our patients about their blood pressure when we record them for the first time and, on the other hand, from flattering ourselves unduly on the success of our treatment on taking subsequent records when the armlet and compression is less of a novelty.

Technique of Investigation.

In considering actual estimation of the blood pressure, I would like to stress the point that the chief value of instrumental readings is that they supply us with figures that we can record and compare with those found on subsequent examinations. As regards diagnosis, prognosis and treatment, the readings should be looked upon as merely additional links in a chain of evidence practically complete without them if a careful investigation has been made of the size and efficiency of the heart, condition of the blood and state of the kidneys. To avoid allowing the figures to assume an undue importance, it is wise to leave the instrumental measurement to the end of the examination. Of the various instruments in use I propose to discuss only the sphygmomanometer which, of course, records the arterial pressure. Most of the instruments on the market are sufficiently reliable for ordinary purposes, but the opinion seems to be pretty general that those on which the pressure is recorded on a U-tube of mercury are least liable to get out of order. It is, however, of great importance to see that the armband is wide—not less than 12 centimetres. In the case of people with grossly fat arms this is still probably too narrow, but in any case the bags in vogue are so short that readings are never very reliable in such people.

It is as well to combine the palpatory and auscultatory methods to avoid being misled by the so-called "silent gap" which is occasionally met with. In such cases the tapping sound, heard in auscultation as the pressure in the bag increases, disappears for a time before the flow through the artery has really stopped, to reappear again later if the first disappearance has not been accepted as the index of systolic pressure.

As an example may be quoted a patient seen a few days ago whose palpable systolic pressure was 230 mm. On changing over to auscultation the first tapping sound was heard at 230 mm. and continued to 210 mm. There was then silence to 180 mm., when the sound was again heard and continued to 90 mm. Had auscultation alone been used, working upwards as the compression in the bag increased, the systolic pressure might have been estimated as 180 mm.

There is often some difficulty in determining the diastolic pressure, as the tapping sound heard as the air slowly escapes from the bag sometimes keeps of the same intensity till it abruptly ceases, but at other times it abruptly changes to a more muffled character, and this muffled sound may go on for some time and sometimes be heard when all compression has ceased. The figure accepted as the diastolic pressure should be that at which the loud tapping ceases, whether being replaced by silence or a muffled sound.

Clinical Discussion.

Very varying opinions seem to be held as to what is a normal blood pressure, but I think we may safely say that a systolic of 120 and diastolic of 80 mm. is a fair average for any adult. We must not forget, however, that an average figure is not necessarily a usual figure, but simply a mean and that numbers of perfectly normal people will have pressure readings well below and well above 120-80 mm.

Many people go through life with pressure as low as systolic 100 and diastolic 60 or 70, capable of as full activity as those with much higher readings. Their chief danger is that of meeting a doctor who, instead of congratulating them on their prospects of longevity, will tell them that their hearts are weak.

Such was the fate of a patient of 52 seen a few weeks ago who consulted me because his blood pressure had been "too low" for the last four years. It turned out that four years ago he had had transitory vertigo on rising one morning and consulted his doctor, who was greatly concerned about his low blood pressure and had been trying to raise it ever since. I found him perfectly normal and with a blood pressure of 128-80 mm. When I told him his pressure was quite satisfactory he was delighted, and said that it had been terribly low, "varying from 114-126," despite treatment.

Again, only a few weeks ago, I saw a man of 59 whom I had seen ten years before for Meniere's syndrome. He had recently had another acute seizure and seen a doctor who had kept him in bed a month on account of heart weakness causing a low blood pressure. I found nothing wrong with his heart and a blood pressure of 110-70—exactly the same as it was ten years before.

Even when a blood pressure is encountered which is known to be much lower than that usual for the individual the odds are strongly against the heart being responsible, and it is far more likely that the fall is due to vasodilatation. This is most strikingly seen in syncope when, contrary to popular belief, the heart is very rarely at fault. Low pressures of this type are frequently seen in neurasthenic individuals with cold extremities, visceroptosis and nervous dyspepsia. Unfortunately cases of this type are so susceptible to suggestion that even without medical prompting they often complain of praecordial discomfort, fluttering about the heart, and so on, and we have to be on our guard against confirming their suspicions on inadequate grounds. This is essentially the kind of case in which we should resolutely relegate to the background blood pressure readings and subjective sensations and diligently search for objective evidence of cardiovascular disease, feeling sure that if one of the more serious causes of falling blood pressure such as general myocardial failure or local coronary occlusion is the explanation, unequivocal evidence will be discovered. It is worth remembering that quite often, though by no means invariably, in these latter conditions the fall in systolic pressure is out of proportion to that in diastolic, leading to a low pulse pressure. During many acute illnesses, of course, the blood pressure will fall to a much lower level than is normal for the individual, and quite often it will remain lower than usual for some time after apparent recovery. In these cases there is usually a corresponding fall in both systolic and diastolic readings, and it is probable that myocardial damage generally plays but a minor part. Post-mortem examinations after death from pneumonia suggest that in this disease, and it is quite likely that the same applies to many other conditions, toxic spoiling of the adrenals is an aetiological factor and that the fall is somewhat analogous to that seen in Addison's disease.

Turning now to high pressure. Unquestionably there are many whose pressure readings are always above 120-80 and who yet, in all other respects, conform to our criteria of health. I have watched many such cases over long periods and have found that their pressures do not tend to rise disproportionately with advancing years. It is difficult to set a standard above which the figures in themselves could be regarded as definite evidence of a pathological state of the cardiovascular system. I personally feel no anxiety, and engender none, in a patient whose figures conform to the one-time popular standard of the age added to 100 and in nervous people a somewhat higher reading may be regarded leniently on a first examination, as pressure can only be regarded as significant when persistent. Probably more significance should be attached to elevation of the diastolic pressure than of the systolic in the apparently

healthy, and some writers dogmatically state that a diastolic of 100 or over is frank evidence of pathology if persistent. In many cases this is no doubt true, but nervous influence will raise the diastolic pressure as readily as the systolic, and it may be that the diastolic is not always as high as we find it.

Take, for example, the case of Mrs. T., a nervous patient, who has been under my supervision for indigestion and nervous instability since 1919, and whose blood pressure I find I have recorded on 35 occasions in all. On the first occasion it was 185-110; of the remaining six, it was four times 100, but twice it was only 90. She has no complaint referable to her blood pressure and is a very healthy woman, with apparently a perfectly normal cardio-vascular system and kidneys. In May of this year the reading was 160-100.

What we may describe as pathologically increased blood pressure may be classified as the elevation affects especially the systolic or diastolic pressure or both. We meet with a raised systolic and low diastolic pressure especially when there is an increased cardiac output as in heartblock, in aortic insufficiency, and in hyperthyroidism where the relaxation of the peripheral vessels leads often to exceptionally low diastolic readings. The same type of reading is often encountered in the arteriosclerosis of the aged which leads to a loss of elasticity throughout the whole arterial system. The recognition of any one of these conditions indicates that we are dealing with a compensatory rise in pressure which in itself definitely calls for no interference.

The next group in which there is an increase in both systolic and diastolic pressures is of much greater importance. It may be due to—(1) Peripheral vasoconstriction. (2) Permanent narrowing of the lumen of the small arterioles—chiefly intimal. (3) A combination of these two.

(1) Peripheral vasoconstriction is essentially a nervous phenomenon which is quite normally brought into play in emotional stress such as occurs in fear and anger. It is hard to say how far adrenalin and the lately discussed sympathine (the adrenalin like substance believed to be secreted by the sympathetic nerve endings on the blood vessels themselves) plays a part by directly constricting the vessels and so limiting the blood supply to the vasomotor centre and establishing a vicious circle; but as already pointed out, we have the example of the rise of pressure which results in increased intracranial pressure from limitation of the blood supply to the centre.

Certainly in many people whose threshold of stimulation is abnormally low, general vasoconstriction is frequently met with, and we see mild degrees of this almost daily in our consulting rooms as a result of the environment. Per-

sistent vasoconstriction of this type is particularly common about the menopause and yields readily to drugs which raise the general threshold level of stimulation. I have records of many such cases where pressures like 200-120 have fallen to normal levels after the administration of bromides for a week or two. This type of raised pressure should always be suspected when no organic defects can be found and particularly when there is a wide range of readings on different visits.

(2) Arteriolar thickening leading to permanent reduction in the lumen of the small arterioles is the chief cause of serious disease resulting from high blood pressure and is the only form that should be considered in itself a disease entity. On the other hand, it is essentially a condition in which a raised blood pressure is urgently needed. An arteriole may be aptly compared to the feed pipe to a carburettor supplying, as it does, the blood to a group of capillaries whose function is to bring oxygen and other nutriment for combustion by the cells of the body. If the feed pipe is rusting up it is only by forcing the fuel through at a higher pressure that the carburettor can be kept working, and the risk of a pipe bursting has got to be taken. Unfortunately we are prone to be so obsessed by the fear of the bursting that we forget the essential object of the raised pressure. It is as well therefore to remember that heart failure, thrombosis of diseased arteries through falling pressure, and renal inadequacy stage the final scene in far more of these cases than vascular rupture. In planning treatment, then, our first thought must be to avoid anything that will impair the efficiency of the heart. We shall, therefore, be very shy of so-called vasodilators, the fall resulting from the use of many of which is to a considerable extent due to their action on the heart muscles. Far better to concentrate on efforts to prevent, or at least delay, further vascular thickening and to reduce to a minimum complicating vasoconstriction.

Essential arterial hypertension or hyperpiesia may be a primary condition or it may be secondary to disease of the urinary tract, usually haemorrhagic nephritis, less often calculus nephritis, chronic pyelonephritis or polycystic kidneys. I will not discuss this secondary type further than to remind you that in advanced degrees of hypertension it is sometimes difficult to determine whether renal changes present are primary or secondary.

Primary hyperpiesia owes its position in disease nomenclature to some extent to the sphygmomanometer and is often an early stage of that chronic state known in pre-sphygmomanometer days as arteriosclerosis. It is apt to be regarded as of such sinister significance that its victims

are liable to be attacked on suspicion with a fusillade of extremely expensive drugs, often of foreign manufacture, as though they were otherwise destined to speedy dissolution. Fortunately these remedies usually completely fail to produce the fall in pressure promised in the accompanying advertisements; indeed, only too often the chief result of the intensive treatment is that increased vasoconstriction from fright is added to the burden the heart has to bear.

There is no question that there are cases so rapidly progressive as to justify the term "malignant hypertension" in which the pressure, especially the diastolic, rapidly and continuously rises, retinal changes, and often marked renal symptoms early appear and the whole course is very short. But such cases are exceptional and in the great majority of hypertensive patients the condition is a mildly progressive one, often discovered in routine examination and having no relation at all to the symptoms for which our advice is sought; and if the cardiovascular system and kidneys are reasonably sound there is no occasion for panic merely because the blood pressure reading is a high one. I have had numerous people under my observation for years whose general state of health is now apparently little, if at all, worse than when I first discovered that their blood pressure readings were characteristic of well established hyperpiesia. None of them know the figures of their readings; all they know of this aspect is that their blood pressures are rather higher than they should be and may become a menace if they are not reasonably careful.

As concrete examples I will give very brief notes of four such cases that have happened to report during the period I have been preparing these notes:—

Mrs. B., aged 66, first seen in March, 1925. Heart somewhat enlarged, B.P. 220-130 m.m., arteries not unduly thickened for age, urine clear. B.P. recorded 30 times since, lowest reading 190-100 m.m.; last reading in May, 1933, 225-125 m.m.

Mrs. J. V. B., aged 45, first seen September, 1922. Heart not enlarged, B.P. 190-110 m.m., urine definite albumin, few hyaline casts. Not seen again till May, 1933: B.P. 200-90 m.m., urine definite albumin, few hyaline and granular casts.

Mrs. P., aged 45, first seen March, 1920. Heart somewhat enlarged, B.P. 210-120 m.m., urine clear. Since then systolic pressure has ranged between 180 and 240 m.m. and diastolic between 110 and 135 m.m. In May, 1933, B.P. 190-110 m.m.

Mrs. A., aged 66. First seen January, 1925. Heart enlarged, B.P. 220-140 m.m., urine slight albumin, very few hyaline and granular casts. Since then systolic pressure

has ranged between 190 and 230 m.m. and diastolic between 115 and 140 m.m. In May last, B.P. 200-130 m.m.

I could supply many more such cases from my records, but these will suffice to indicate how unwise it would be to base a prognosis on blood pressure readings alone. Unfortunately, these records could supply many other cases where a very grave prognosis has been only too soon proved correct when it has been based upon evidence of commencing cardiac or renal failure, though quite often the first recorded systolic blood pressure reading has been lower than that in any of the cases just brought under your notice.

That the rise in pressure due to arteriolar thickening is always enhanced to some extent by superadded vasoconstriction is evident from the temporary effect of vasodilator drugs, but in some patients the constrictor factor is so marked as to justify a diagnosis of a definite combination of vasoconstriction and intimal thickening. This should be suspected when, with a persistently raised level, there are marked variations on different occasions. It is also likely to be present in those who complain of symptoms reasonably attributable to their blood pressure such as severe headaches on mental stress or excitement, attacks of vertigo or cerebral attacks of the so-called intermittent claudication type, for it would appear that it is rapid variation in the level rather than the degree to which the pressure is raised that gives rise to symptoms. Hence it is that the vasoconstrictor victim of the menopause suffering the tortures of the damned is succeeded in the consulting room chair by the disgruntled deferred candidate for insurance loudly proclaiming that he has never had a day's sickness or a headache, but who turns out to have a blood pressure in the region of 250-140.

As an example of the combined type may be quoted Mrs. B., 60, first seen in May, 1924, with a pain in the back of the head and the nervous dyspeptic symptoms. The heart was slightly enlarged and B.P. 240-140 m.m. Since then the systolic pressure has ranged between 145 and 240 m.m. and diastolic between 105 and 140 m.m. In May last, B.P. 190-115 m.m.

Finally we come to the group with a high diastolic and relatively low systolic pressure. When this type of pressure is seen gradually replacing the classical hyperpietic readings it should always be regarded as of ominous significance and an indication that the coronary vessels sharing in the general arterial disease are becoming incapable of supplying the needs of the hypertrophied heart. Suddenly developing, it is very suggestive of a gross coronary occlusion. The trouble is no longer too high a pressure, but owing to myocardial insufficiency a pressure sufficiently

high to supply the vital centres can no longer be maintained. A common early symptom is waking breathless in the night, probably due to the fall in pressure that comes with sleep. We see many of our hyperpietics eventually drifting into this stage, but quite often it is the first indication of ill-health, as in the following case:—

Mr. J., aged 57, with no previous history of ill-health, consulted a doctor nine months ago for "indigestion" which especially worried him at night. The doctor told him he had a very high blood pressure, "198," and advised treatment, and seemed gratified a few weeks later that the pressure had fallen to "175," but an irritating cough and some dyspnoea had gradually developed and when I saw him in May last he was breathless on the least effort and especially complained of waking in the night with a sense of suffocation. The heart was grossly enlarged, pulse 120, B.P. 170-125 m.m., urine loaded with albumin, general oedema. It is evident that for years while he thought himself in good health this man has been subjected to some baneful influence, one of the effects of which is arterial hypertension, and there is little doubt that at some time his systolic blood pressure has been much above 195 m.m.

Since mere overwork causes but moderate hypertrophy in a sound heart, the gross enlargement here clearly points to replacement hypertrophy compensating myocardial degeneration. This is but a clumsy makeshift, as the larger blood supply required to feed the increasing mass can only be obtained by raising still further the pressure in the narrowed vessels, and if vascular rupture or renal inadequacy fail to interrupt the course it can never be very long before the struggling heart is starved into submission.

Bill Jamieson does in a day
Enough work to earn ten times his pay,
And between me and you
There is nought he can't do—
Wherever there's Bill there's a way.

When for hours you've assiduously tried
To unravel the maze of a slide,
With a "mike" and a book—
Give Bill Bagnall a look,
He's as tall as his knowledge is wide.

Dermatological Points That Every Practitioner Should Know

By E. H. MOLESWORTH, M.D.

Lecturer in Diseases of Skin, University of Sydney, and School of Public Health and Tropical Hygiene. Hon. Physician for Diseases of Skin, Royal Prince Alfred Hospital, Sydney.

TO the student, and even to the man in general practice, diseases of the skin often appear as a subject, apart from general medicine, or as being wrapped in mystery. Neither of these ideas is correct. It is true, that pathology has become so clinical in dermatology, that it has lost the aloof laboratory air; and radiation treatment has become such a highly important matter, that every dermatologist has to learn and practise radio-therapy. He has to possess and develop a keen sense of the colour, form, distribution and consistence of different individual lesions, which are often minute. The scope, variety and complexity of the manifestations of disease, as shown in the skin, are greater than in any recognized department of medicine, except those of general medicine and general surgery. Dangerous diseases, like cancer and syphilis, are very commonly manifested in the skin. Tuberculosis, fortunately, very rarely affects the skin in Australia, but this freedom is compensated by the extraordinarily frequent occurrence of carcinoma. Diseases which are rare, like leprosy and many tropical infections, still bulk largely in nearby countries, and must be considered in dermatological practice in Australia.

But these difficulties do not detract from the fact that skin diseases provide an important part of the work of the general practitioner. Diseases like acne vulgaris and scabies occur in every practice, and, though they carry no threat to the patient's life, sufferers are not encouraged to trust more serious conditions to the care of the practitioner who fails to afford him relief in simpler ailments. Vastly more important than these, however, are the cases of eczema, of syphilis, and of carcinoma of the skin. The latter condition, if left to itself, kills just as surely as cancer arising in any other organ, and the fact that it kills so comparatively rarely is the brightest star in the crown of dermatology. But credit is also due to the general practitioner, who has learned during the last 20 years to recognise this disease at a stage of development far earlier than those depicted in most text-books.

Before going into this subject more deeply, the other two that have been mentioned must be dealt with.

The eczematous reaction still provides much that is puzzling to the practitioner. This is because so many different diseases of infective nature produce lesions which

simulate an eczematous reaction. It is only necessary to mention two—namely, seborrhoeic dermatitis and tinea (epidermophyton) infection. The former can be distinguished by its greasy scales and follicular origin, its predilection for the scalp, retro-auricular, nasolabial, interscapular, sternal and flexural regions, and the presence in the scales of abundant Gram positive "bottle bacilli" (which grow as mycelium in artificial media). The epidermophyton infection, so common between the toes and in the inguinal region, can be distinguished by the discovery of mycelium in the scales and vesicle roofs.

These two infective diseases require active antiseptic treatment, and benefit provided by such treatment in these diseases leads to grave errors in the dressing of a true eczematous eruption. There is now hardly any mystery about the aetiology of an eczema. Such an eruption can be produced in anyone if the irritant is applied strong enough or long enough. But in a large proportion of cases the reaction is produced by substances which are non-irritant to the great majority. In other words, the ordinary eczematous patient is allergic. Without going into the complicated question of allergy, it is sufficient to say that the problem of eczema is the same as that of asthma, urticaria or hayfever, and depends for a solution in each individual case upon the discovery and elimination of the cause, on the one hand, or upon the desensitization of the patient on the other. For the purposes of this article, it is sufficient to record that the successful treatment of eczema does not depend upon the application of a remedial dressing, though the continuance of an eczema is very frequently traceable to some application prescribed. Antiseptics, as such, never have, never will, and never can cure an eczema. On the contrary, they are commonly the originating cause and, still more commonly, are responsible for the continuance or aggravation of an eczema. It is quite true that certain substances which have antiseptic properties such as carbolic and menthol have a limited sphere of usefulness in the treatment of certain cases of eczema, but this is because they provide in addition an antipruritic action which saves the patient from the more damaging irritant action of scratching. But even these must not be used if there is any possibility of a coal tar derivative, such as lysol or carbolic soap on the one hand, or a menthol shaving cream on the other, having been responsible for the eczema. "Primum non nocere" applies more to eczema than to any other disease. Yet, every day, one finds an obvious eczema that has been treated with a mercurial or other antiseptic incorporated in a lotion or ointment. If the practitioner does not feel able to probe into the multitude of possible irritants his best plan is to stick to plain calamine lotion, plain zinc cream, or plain zinc paste. In that case, someone else must

be asked to investigate the cause and to unmask the irritant responsible. Much loss of reputation is occasioned by trying a succession of different dressings for an eczematous eruption, since the patient is acutely conscious of the damaging effect of unsuitable applications.

Syphilis, still a common infection, and one of the deadliest of the serious diseases, is often missed in practice. When a man in general practice, especially in the suburbs, states that he never sees a case of syphilis, he confesses to a serious fault. In a way he speaks truly, but only in the sense that he fails to recognize the lesions of syphilis in the skin or mucous membranes, or that he does not suspect the possibility of syphilis, and therefore does not look for signs of its presence. At the present juncture it is more important, for example, that the medical practitioner should be able to recognise the signs of syphilis than those of typhoid fever, since unrecognized syphilis kills twenty times, and, perhaps, a hundred times as many people as typhoid does in Sydney.

Another error which must be guarded against is the treatment during the first year or even the first month of a patient recognized as having early syphilis without employing one of the arsenobenzol drugs. Even if the patient be referred for arsenical treatment later on, the golden opportunity for total eradication of the disease has been lost, and it is problematical whether it is possible to achieve a complete cure thereafter.

Finally, we come to what is strangely enough a much more cheerful subject—namely, carcinoma of the skin. When one considers that carcinoma of the skin (not counting pre-carcinomatous lesions) is more common in Australia than cancer in all other organs put together (Bull and Hanson, M.J.A., 20th May, 1933, p. 609), it is almost incredible that the death rate should be so low. The reasons for this remarkable state of affairs are various. First, carcinomata in the skin are readily seen, and therefore recognized earlier than those which originate in internal organs. For the same reason they are accessible and can generally be removed or treated by radiation with greater ease. But a very important fact is that the degree of malignancy, as shown by rapidity of growth and period of gland involvement, is fortunately low, as compared with carcinoma of the breast, stomach or tongue. In squamous carcinoma of the skin there is nearly always a high degree of keratinization which always means a comparatively low grade of malignancy. The same growth in the tongue often shows little tendency to keratinization and a correspondingly high malignancy. Cancer of the lip generally adopts an intermediate grade of malignancy.

During the past 25 years the situation with regard to skin and lip cancer has improved tremendously. It is a

great rarity nowadays to see the horrible destructive tumours which exposed the nasal cavity or the antrum; that destroyed the eye and caused death by haemorrhage or by meningitis resulting from perforation of the skull. This improvement seems undoubtedly due to two factors—the earlier recognition of the growth and the more efficient treatment that is available and that is so generally employed. There is, nowadays, no necessity for surgical extirpation, except in advanced cases involving bone. The knowledge of this fact being widespread among the population, sufferers apply for and obtain treatment at an earlier stage than that at which many would consent to have an "operation" for a lesion which to them is insignificant. However dear it may be to the medical attendant and however free from risk the latter may regard it, an "operation" is unwelcome or even feared by a notable proportion of patients. Owing to this fear they cannot bring themselves to believe that a small painless unulcerated button of growth warrants such drastic measures. As a result of this they procrastinate sometimes until their chance is diminished to a mere fraction of what it was at the beginning. The removal of this fear has been a very potent influence in the determination of the improved results and small total of deaths resulting from skin cancer.

Occasionally, however, cases still appear for the first time in a late stage, and sometimes practitioners delay until ulceration has occurred before they make up their minds that a lesion is carcinomatous. The ulcer with a pearly edge is recognized as a basal-celled growth, and that with a hard and everted edge is obviously a squamous carcinoma, but these growths can be recognized generally much earlier even on clinical evidence alone. A flat keratosis with an infiltrated base or a small pearly button that has shed its keratotic cap is generally a rodent tumour, and a warty or acuminate keratosis with a hard papule beneath it is nearly always a squamous carcinoma. There is room for an occasional error, but when the lesion is on an exposed area in a patient over 50 who shows obvious signs of chronic sunburn these mistakes will be rare in Australia. In this stage they are often spoken of as pre-carcinomatous lesions, but histopathological examination will prove that the Rubicon has already been crossed. Therefore, it is safer to speak and think of a keratosis, with an infiltrated base, as an early carcinoma. With this conception clear in the mind further delay is avoided, and at this stage cure is so easy and so nearly certain that the opportunity should never be missed.

To every practitioner in country districts this condition will be presented several or many times a year, and there is no reason why he should not be as sure of the diagnosis at this early stage as he is of lobar pneumonia when he finds

a flat percussion note and tubular breathing at the base of a lung in a patient with a temperature of 103 deg. and a high rate of respiration.

When this is generally recognized and when, in consequence, cases are urged to have immediate treatment, there is no reason why deaths from skin cancer should not be almost completely eliminated.

Much the same applies to cancer of the lip which can be and should be diagnosed before ulceration occurs. When a keratosis of the lip is infiltrated at the base it is already cancer of the lip. Even after the keratosis is shed the lesion often remains without ulceration for some months. These cases can all be cured in the primary situations, and the risk of gland involvement is practically nil.

To conclude, I shall give the oft-repeated comfort that a pathological report of squamous carcinoma of the well-keratinized type whether in the skin or the lip is not in itself an indication for the removal of regional glands. It is true that occasionally a rapidly growing highly malignant carcinoma arises in the skin, involves glands early and kills the patient quickly, but these are very rare exceptions, instances of which have come under my notice only three or four times in 25 years. It is doubtful whether such growths which occur much more frequently in the tongue can be cured by any means once glands are involved, and one cannot legislate for rare exceptions.

More than this, the old doctrine that a cancer of the lip requires clearance of regional glands, even though none be palpable, has now been seriously challenged. Even glands that are palpable are not necessarily carcinomatous, being often enlarged as a result of septic absorption, as proved by their resolution, when the primary lesion has healed. Those that remain can be removed a little later, with less chance of septic contamination of the wound and possible secondary haemorrhage. This knowledge was provided by the Regaud School, at the Institute de Radium, in Paris, and has been checked in other cancer centres. In the writer's own experience, the disappearance of obviously enlarged glands, without any treatment of the gland areas, has happened on several occasions, when the primary growth has healed. On the contrary, only once out of 43 successive cases of epithelioma of the lip without obvious enlargement of glands has involvement of glands manifested itself later. Some of these cases were quite advanced, the infiltration extending a centimetre or more down into the substance of the lip; about half of them were actually ulcerated, the rest being early lesions.

The clearing of both submaxillary regions is a severe and serious operation. The saving of this in the great majority of instances, when it is not necessary, much more than compensates for the occasional case in which delay

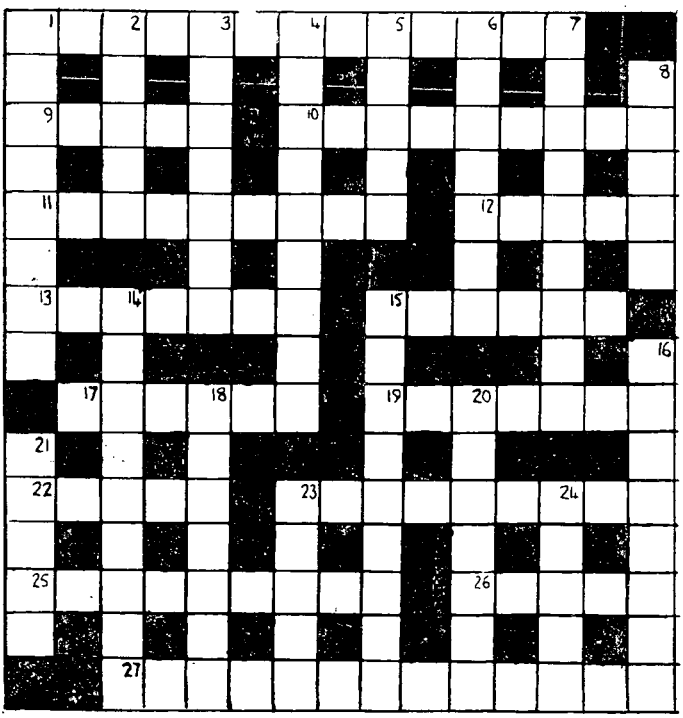
will have occurred. This teaching will, no doubt, be regarded as wicked heresy by some, but the evidence already available makes it safe to prophesy that it will be orthodox before many years have passed. The patients must be watched carefully, of course, and ordered to report for examination at short intervals during the first year, and at longer intervals subsequently.

As in the case of skin carcinoma, if the fear of an operation and of the removal of part of his lip is eradicated from the patient's mind, he will tend to report at an earlier stage and all will be well.

There are many other aspects of dermatology which come frequently into the sphere of activity of the general practitioner, but space will not permit of their discussion. It is to be hoped, however, that those mentioned will show students that diseases of the skin do form an important part of the work required in general practice, and that realization of this fact will prevent subsequent loss of reputation in the eyes of their patients, and save many lives and much suffering if stimulation is supplied to acquire the necessary knowledge.

THE MEDICAL SCHOOL JUBILEE CROSSWORD.

By Douglas Anderson.

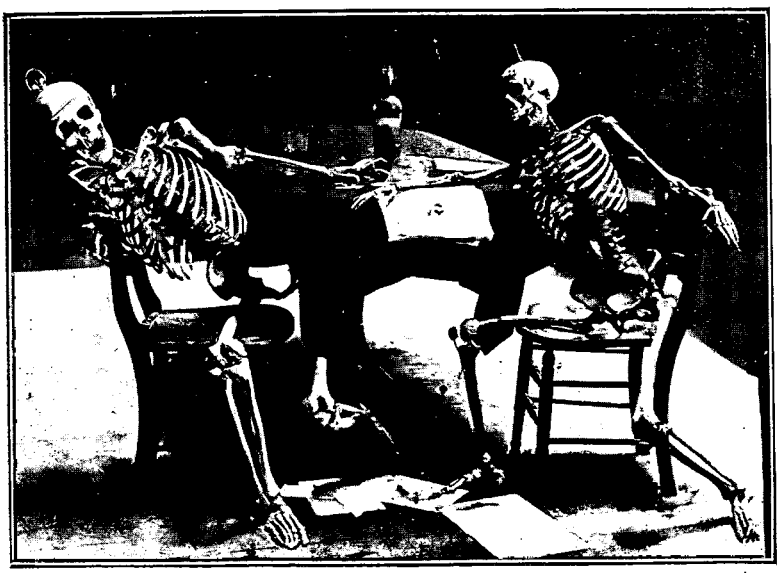


ACROSS.

1. There was wisdom in this folly (two words).
9. Cicatricule of an egg.
10. The girl in the Seraglio.
11. Vastness.
12. Radon rather less so than helium.
13. You won't find many of our Profs. in this grove.
15. Aimed at peace.
17. They know in their hearts what it is.
19. A mocker (most of him on horseback).
22. Expressed in lectures by shifting weight from one glutaeus maximus to the other.
23. Monastic short cloaks.
25. A common soldier's pinna goes a-pirating.
26. Take in livestock to feed.
27. Number 1 celebrates this.

DOWN.

1. Legendary.
2. If you do this a lot, don't read Freud.
3. A 'bus-conductor or hanger-on, stupid, is in harmony.
4. Person lukewarm in religion (Revelations, iii., 14-16).
5. Sparing in.
6. The surgeon will pass an instrument into every one you've got, if you're not careful.
7. Some solid bodies did this when they were heated.
8. Mole running out into the water.
14. Foolish students are found doing this to dull lecturers.
15. India is shaken with agitation for this (two words).
16. Great-aunt's little curly forehead wig that she called her transformation.
18. Dissect a lady's maid and have a long beer.
20. This dessert keeps the b.w.o.
21. Entice.
23. Upright slab with inscription, perhaps sculpture.
24. Gazelle.



BLISTERS AND FOMENTATIONS

"Sans gène mais sans reproche."

A lady of our acquaintance once enthused upon the French language. "So subtle in its inflexions," she remarked. "And consider all the delicate meanings one can convey!" To which we replied, having in mind certain novels, "Yea, and the indelicate ones, too."

The story forms an apt prelude to our "Blister" page. The indelicate tit-bits, which have seen the light under the well-known column-head, if collected together, suitably annotated, and bound in asbestos covers, would make the French novels referred to above, read like introductions to Sunday School tracts—at least some of them.

But our "Blisters" are counter-irritants. We advance this statement in our own defence, for oftentimes we have blushed in our sleep when haunted subconsciously by an extra-choice morsel of dissecting-room wit. Furthermore, the "Blisters" are an institution, chortled over by generations of students and retailed in all their naughtiness by practitioners (by some practitioners; we beg our pardon). Hence, a Jubilee number would not be complete without its share of "Blisters and Fomentations." For this very good reason we are including a selection made from the columns of past numbers. But, bearing in mind the solemnity of the occasion which prompted this issue, some care has been exercised in choosing presentable examples. These have been laundered and passed through the editorial collander. We regret to have to add that, on viewing the final list, three previous Editors committed suicide, four resigned from their clubs, and one invited his mother-in-law to pay him a protracted visit.

JUBILEE JOURNAL.

The song of the E. N. and T. Surgeon—"The National Antrum." He nose it by ear.

The Lady: "Are you fond of lobster salad, doctor?"

The Doctor: "No, I'm not fond of it, but I am very grateful to it."

Visitor (at doctor's house, to small daughter): "Is your daddy in, dear?"

Small Daughter: "No, he is giving an anaesthetic."

Visitor: "An anaesthetic? That's a very big word. What does it mean?"

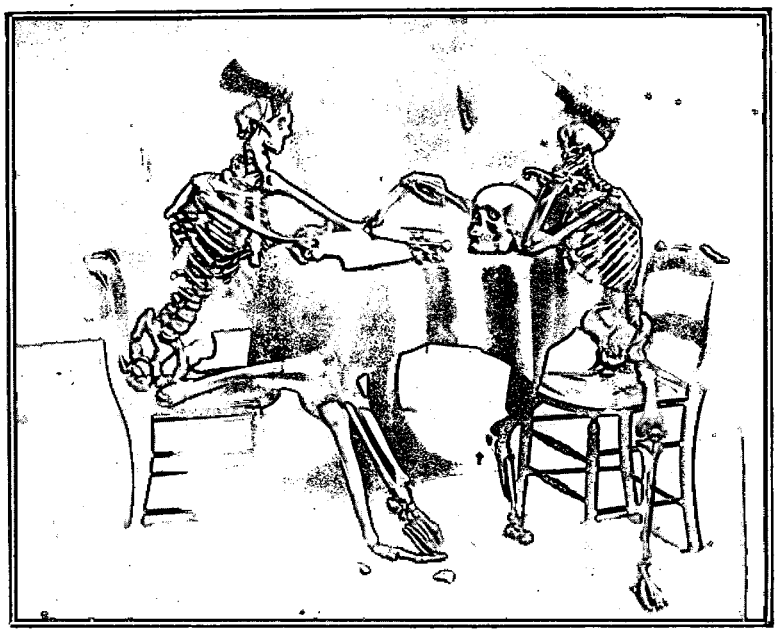
Small Daughter: "Three guineas."

R.M.O.: "What did you operate on old Piles for?"
Surgeon: "£500."
R.M.O.: "No; I mean what did he have?"
Surgeon: "£500"

There once was a man in Cathay
Who thought chancres just faded away,
But now he has Tabes
And snuffly babies,
And thinks that he's Queen of the May.

After adolescence comes adultery.

The patient had been handed a nicely printed sheet by the R.M.O., commencing, "You are suffering from a contagious disease which may take from three months, etc., etc." He left in good spirits but a few



minutes later put his head in the doorway with a worried look: "I say, doctor, that what I've got ain't measles, is it?"

"No."

"Good-oh; I was afraid it might be."

Doctor: "Well, how do you feel this morning?"

Hypochondriacal Patient: "Not so bad, doctor, but my breath keeps coming in little short pants."

Doctor: Well, what do you expect it to come in, plus fours?"

The occasion was the weekly class in physiology.

"Where do you keep your heart, Tommy?" asked the teacher.

"Here," he replied, placing his hand more or less accurately over the praecordium.

"And where are the bowels?"

"I dunno, Miss," replied Tommy, "Mother's always moving them."

BELIEVE IT—OR START A FIGHT.

(Specially written for this issue by Saul Bull, B.W.O., C.B.I.)

It is impossible for a one-armed man to pair his finger-nails.

A new type of thermometer has been invented for the use of the blind, the figures being in Braille. (See next Jubilee number for details.)

If all the capillaries in a person's body were placed end to end the chap who did it would be an awful ass.

Some people are so unobservant that if their brains were blown out they would not notice anything amiss.

Statistics show that married people do not live longer than those who are single; it only seems longer.

It is on record that Gimi Scalpelsky, the brilliant Russian surgeon, once made a correct diagnosis before opening the abdomen.

Physicians are often very bowled men.

Extant copies of "The Saturday Evening Brick" show that the Guild of Gynaecologists of ancient Babbleon had as its motto, "Womb for improvement."

Obstetricians have to deliver the bads as well as the goods.

It is becoming increasingly evident that doctors are often maid and not brawn.

The efficient treatment of gonorrhoea is a sound proposition.

The beaches this year should present ideal conditions for the study of "Surfers' Anatomy."

Pathologists are the only people who can let things slide—and get away with it.

Even the best orthopaedic surgeons express complete ignorance concerning Two-up Joints.

The instructor who pays most attention to his pupils is the Honorary Anaesthetist.

Before the advent of X-ray diagnoses, apparently, were not made —they were inspirations from heaven.

"Good morning, Mrs. Kelly," said the doctor, "did you take your husband's temperature, as I told you?"

"Yes, doctor, I borrowed a barometer and placed it on his chest; it said, 'Very dry,' so I went and bought him a pint of beer an' he's gone back to work."

The omentum is the policeman of the abdomen, the surgeon is the carpenter, the physician is the unbidden guest—and the pathologist is the sewerage inspector.

Wife (to sick husband): "Well, there's one thing, 'Erb, wot with 'ot poultices every two hours and yer medicine every three, the days'll soon pass."

Since making diagnoses
Is what we aim to do,
The proctoscope contributes
Much to the end in view.

Nervous Patient: "Will the anaesthetic make me sick?"
Doctor: "No, I think not."
Nervous Patient: "How long will it be before I know anything?"
Doctor: "Aren't you expecting too much of an anaesthetic?"

Student (at maternity hospital): "Bear down, mother!"
Mother: "I wish I could! It would be softer than bearing children."

Minister to nursemaid, prior to christening of baby: "And what is the child's name to be?"

"Henry Fitzmaurice Smith-Williams."

"Hyphenated?"

"Oh, no. The doctor's coming to do that on Wednesday."

We have heard the modern perambulator described as a "blunderbus."

First Patient: "And did you tell the doctor that I sent you?"

Second Patient: "Yes, I told him that."

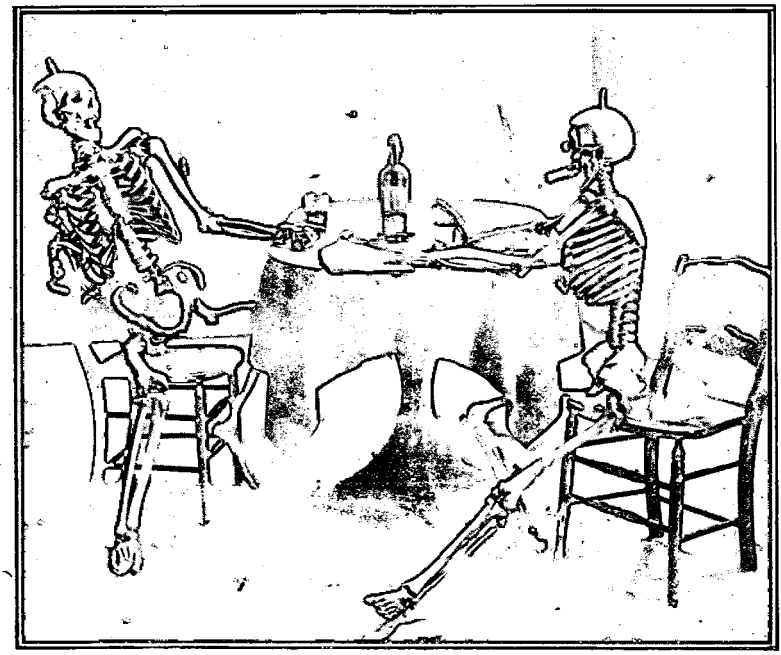
F.P.: "And what did he say?"

S.P.: "He asked me to pay in advance."

"Even a physician who is not famous has many a monument erected to his fame."

Voice of nervous and trying patient over 'phone at 3 a.m.: "Oh, doctor, I've taken a double dose of that medicine. Do you think I'm poisoned?"

Doctor (destined never to succeed in life): "Afraid not." (Rings off.)



"What is 'Twilight Sleep,' Daddy?"

"Oh, only one of those new labour-saving devices, I suppose."

When the physician speaks, be earnest—listen: when the surgeon swears, be joyful—watch!

Saith the pious man, "I shall be strong, D.V." Saith the impious, "I have been weak, V.D."

Patient: "Well, I had all the things the doctor looked for; but there's one thing I'm thankful for, I didn't have none of them knee jerks."

Doctor: "And how old are you, please, madam?"
Old Lady: "I'm pleased to say I'm a septic geranium."

Surgeon: "Did you ever see such a ridiculous instrument?"
One Too: "Well, I've seen cilia forceps."

Rosen had been nursing an obstinate cold for a fortnight. He had tried every known remedy without success, when he met Dilbaum.

"Dat's a nasty cold you haf, Rosen," said his friend. "Vy don't you take somethink for it?"

"Vy don't I take somethink!" yelled the exasperated victim, "How much vill you give me?"

Jones (discussing his prescribed diet): "I can manage the rest of it, but I can't keep the oysters down."

Brown: "Oh, that's easy enough. Give them to me. I'll show you how to do it." (Swallows several.)

Jones: "Yes, that's all right, but they've been down three times already."

Motorist: "Give me two pints of castor oil."
Garage Man: "You mean 'Castrol,' sir."
Motorist: "I mean castor oil. This confounded car hasn't passed anything for a week."

Patient: "I got a husky feeling in the chest, doc."
Doctor: "H'm! Do you cough up anything?"
Patient: "No b—— fear; I belong to the lodge."

A surgeon at Prince Alfred states that such advances are being made in the administration of spinal anaesthesia that patients will be able to read a newspaper while undergoing a major operation. It would be interesting to know whether they would be eligible for the free insurance.

Editors of overseas medical journals are welcome to transcribe as many Blisters and Fomentations as they care to, but we would ask them as man to man not to acknowledge them to "Colonial Paper" as did one Editor recently.

First Teachers' College Girl (in great distress): "I've just been insulted by one of those medical students."

Second Ditto: "Heavens, love, how?"

First Ditto: "I waved up to the Persectry window at him, and he wouldn't whistle."

The man paced up and down before the closed door. He clenched his hands and bit his lips.

"Don't you worry, old man," said Professor Windeyer jokingly, as he had said a thousand times before, "I've never lost a father yet."

"Quick!" said the nurse, putting her head round the door. "Quadruplets!"

And then—bang went the first father!—D.A.

"In all cases where brandy is used," said an Honorary Physician at the North Shore Hospital recently, "sal volatile would do just as well."

We hear that he is to be blackballed from the Union Club.

ANSWER TO CORRESPONDENT.

Mathematicus: No; we doubt if you will get Sweet Seventeen to go twice into Suite 34.

Ikey: "Vot is the deeference between a man and a voman, Abie?"
Abie: "Oh, Ikey, a vas' deeference."

FROM THE NURSES' VIVA VOCE EXAMINATION.

Doctor: "What would you give a patient to open the bowels?"
Nurse: "A teaspoonful of cascara or some compound liquorice powder."
Doctor: "And what else could you give?"
Nurse: "A tablespoonful of castor oil."
Ooctor: "And if all these failed?"
Nurse: "Er, well, I'd give him a dose of scrotum oil!"

SOLUTION TO JUBILEE CROSSWORD.

(See pages 232-3.)

M[1]	E	D[2]	I	C[3]	A	L[4]	S	C[5]	H	O[6]	O	L[7]		
Y		R		A		A		H		R		I		J[8]
T[9]	R	E	A	D		O[10]	D	A	L	I	S	Q	U	E
H		A		E		D		R		F		U		T
I[11]	M	M	E	N	S	I	T	Y		I[12]	N	E	R	T
C				C		C				C		F		Y
A[13]	C	A[14]	D	E	M	E		I[15]	R	E	N	I	C	
L		T				A		N				E		F[16]
	S[17]	T	R	A[18]	I	N		D[19]	E	R[20]	I	D	E	R
T[21]		E		B				I		H				I
E[22]	N	N	U	I		S[23]	C	A	P	U	L	A[24]	R	S
M		D		G		T		N		B		R		E
P[25]	R	I	V	A	T	E	E	R		A[26]	G	I	S	T
T		N		I		L		A		R		E		T
		G[27]	O	L	D	E	N	J	U	B	I	L	E	E

Graduates in Medicine,

UNIVERSITY OF SYDNEY.

DOCTORS OF MEDICINE.

1868.
Goldsbro, C. F.

1870.
Houison, J.
Smith, P.

1872.
Lloyd, F.
Moore, G.
Stewart, G.

1873.
Barrett, J.

1874.
Clay, W. F.
Jones, R. T.

1875.
Taylor, C.

1877.
Blair, J.
Morton, S.

1881.
Bowker, R. R. S.‡
Holroyd, A. T.‡

1882.
Belgrave, T. B.‡
Dixson, C.‡
Knaggs, S. T.‡
Maclean, L. H. J.‡
Milford, F.‡
Oram, A. M.‡
O'Reilly, W. G. J.‡
Warren, W. E.‡

1884.
Maher, W. O.‡

1886.
Collingwood, D.‡
Jenkins, E. J.‡
Ross, C.

1887.
Chisholm, W.‡

1888.
McCormick, A.‡
Worrall, R.‡

1889.
Anderson Stuart, T. P.‡

1890.
Mullens, G. L.‡

1892.
Lyden, M. J.‡
McMurray, W.‡

1895.
Corlette, C. E.
Smith, G. E.

1896.
Bennet, F. A.‡
McDonnell, Æ. J.

1897.
Flashman, J. F.

1901.
Munro, W. L.‡
Stacy, H. S.

1902.
Cleland, J. B.

1903.
Blackburn, C. B.
Margarey, F. W. A.
Nash, J. B.‡
Sandes, F. P.

1904.
Hall, E. C.
Wade, R. B.
Wilson, T. G.

1905.
Davis, J. S.
Gillies, S.‡

1907.
Hipsley, P. L.

1911.
Griffiths, F. G.
Lidwill, M. C.‡
Pockley, F. A.‡

1912.
Archdall, M.
Parkinson, H. H.

1914.
Harris, S. H.

1915.
Priestley, H.

1917.
Halloran, G. R.
Hodgkinson, H. R.
Inglis, W. K.
Maclean, A. L.

1918.
Dean, A. W.
Sharpe, G. G.

1919.
Kesteven, H. L.
Teece, L. G.

1920.
Holmes a'Court, A. W.

1921.
Graham, R. V.
Hughes, L. H.

1922.
Walker, A. S.

1923.
Macewen, W.‡

1924.
Hunter, J. I.

1925.
Lee Brown, R. K.
Lightoller, G. H. S.
Royle, N. D.

1926.
Bateman, J. E.
Cunningham, A. J.
Maguire, F. A.
Morris, E. S.
Nelson, W. T.
Windeyer, J. C.

1927.
Dart, R. A.
Molesworth, E. H.

1928.
Moppett, W.

1929.
Cook, C. E.
Shellshear, J. L.

1930.
Wilkinson, H. J.

1931.
Flynn, M. R.
Maddox, J. K.

‡ Admitted ad eundem gradum.

BACHELORS OF MEDICINE.

1867.

Smith, P.

1870.

Lloyd, F.
Moore, G.
Stewart, G.

1882.

Oakes, A.‡

1886.

Graham, J.‡

1887.

Andrews, W.‡
Ellis, H. A.‡

1888.

Armstrong, W. G.
Bancroft, P.
Davidson, L. G.
Henry, A. G.
Perkins, A. E.
Rutledge, D. D.
Pockley, F. A.‡
Scot-Skirving, R.‡

1889.

Henry, A.
Hester, J. W.
Hinder, H. V. C.
Kelly, P. J.
McDonnell, Æ. J.
Mills, A. E.
Trindall, R. B.

1890.

Hollis, L. T.
Morton, G.
Morton, J.
Neill, L. E. F.
Nolan, H. R.
Purser, C. E.
Sheppard, A. M.
Townley, P. L.
Wilson, C. G.

1891.

Abbott, G. H.
Hunt, C. L. W.
McKay, W. J. S.
Millard, R. J.
Stanley, G. P.
Stokes, E. S.

1892.

Challands, F.
Corlette, C. E.
Dick, R.
Freshney, R.
Lawes, C. H. E.
Leahy, J. P. D.
Lister, H.
Maitland, H. L.
Newell, B. A.
Park, J.
Sawkins, F. J. T.
Shaw, F. C. S.
Tidswell, F.

1893.

Binney, E. H.
Boelke, P.
Coghlan, Iza F. J.
Green, T. A.
Henderson, J. N.
Litchfield, W. F.
Richards, S. J.
Robinson, Grace F.
Scott, E. H.
Smith, G. E.
Sweet, G. B.
Vallack, A. S.

1894.

Bohrsmann, R. H.
Craig, R. G.
Flashman, J. F.
Handcock, C. L.
Henry, J. E. O.
Kinross, R. M.
Luker, D.
McCredie, J. L. M.
McKinnon, R. R. S.
Murray, G. L.
Veech, M.

1895.

Cox, F. H.
Fordyce, H. S.
Goldsmid, J. A.
Hall, G. R. P.
Hughes, M. O'G.
Jackson, J. W.
Rutter, G. F.
Spark, E. J. T.
Studdy, W. B.

1896.

Bennetts, H. G.
Bode, F. F. O.
Burkitt, E. H.
Conlon, W. A.
Crawley, A. J. C.
Deck, G. H. B.
Dunlop, N. J.
Halliday, J. C. W.
Harris, L. H. L.
Kethel, A.
Lancaster, L. B.
McClelland, W. C.
Menzies, G. D.
O'Connor, A. C.
Robison, E. H.
Sheldon, S.
Wade, R. B.
Zlotkowski, F. S. W.

1897.

Barnes, E. A.
Broinowski, G. H.
Chenhall, W. T.‡
Cosh, J. I. C.
Dixon, G. P.
Farrell, R. M.
Harris, W. H.
Higgins, F. C.
Pain, E. M.
Terry, H.
Wassell, J. L.

1898.

Affleck, Ada
Biffin, Harriett E.
Bohrsmann, G. H.
Bowker, C. V.
Carlile-Thomas, Julia
Cooley, P. G.
Cope, H. R.
Dey, R.
Ellis, L. E.
Hall, E. C.
Kater, N. W.
Lipscombe, T. W.
MacPherson, J.
Newton, Alice S.
O'Keefe, J. J.
Pulleine, R. H.
Read, W. H.
Sheldon, H.
Stacy, H. S.
Stevens, W. W.
Throsby, H. Z.
Walton, W. B.

1899.

Blackburn, C. B.
Brade, G. F.
Brennand, H. J. W.
Cargill, W. D.
Delohery, H. C.
Fairfax, E. W.
Ludowici, E.
Mackenzie, J.
MacMaster, D. Æ. D.
Margarey, F. W. A.
Sandes, F. P.
Shorter, H. L. A.
Willis, C. S.
Wilson, T. G.
Windeyer, J. C.

‡ Admitted ad eundem gradum.

1900.

Barling, J. E. V.
Burfitt, W. F.
Burge, S. B.
Busby, H.
Cameron, D. A.
Cleland, J. B.
Corbin, A. G.
Cox, H.
Deck, J. N.
Durack, W. J.
Eichler, W. O. H.
Graham, Mabel J.
Griffiths, F. G.
Gullett, Lucy E.
Hardman, R.
Harris, W. E.
Hart, B. L.
Heggaton, R. D.
Holmes, H. G.
Jones, P. S.
King, A. A.
Lees, G. J.
Maffey, R. W.
McEvoy, J. J. S.
McLean, G.
Newton, W. T. J.
Old, G. G.
Olver, W. R.
Paton, J. W.
Pockley, E. O.
Roe, J. M.
Roseby, E. R.
Savage, E. J.
Taylor, C. J.
Verco, S. M.
West, F. W.

1901.

Barton, J. a'B. D.
Blue, A. I.
Davies, R. L.
Forster, R. C. H.
Garde, H. L.
Greenham, Eleanor C
Holt, A. C.
Lee, H. H.
Macintosh, A. H.
Marr, G. W. S.
Marsden, E. A.
McCredie, R. W.
Savage, V. W.
Thomas, G. B.
Verco, C. A.

1902.

Ambrose, T.
Anderson, A.
Anderson, H. M.
Broadbent, P. L.
Clarke, G. R. C.
Combes, E. W. A.
Dight, W. B.
Flecker, O. S.
Halcomb, C. D.
Horton, W. H.
Hunter, W. A.
Llewellyn, R. F.
Moncrieff, E. W.
Muscio, A.
Page, E. C. G.
Rees, W. L.
Seldon, W.
Sharp, W. A. R.
Stephen, E. H. M.
Stuckey, F. S.
Tarleton, J. W.
Tange, F. S.
Tudor-Jones, E.
Ure, Edith.
Wallace, D.
Webb, F. W.
White, Margaret I.

1903.

Aiken, P. N.
Blayney, H. P.
Bourne, Eleanor E.
Cahill, J. H.
Clarke, P. S.
Conroy, L. B. H.
Corfe, A. J.
Dansey, St. J. W.
Davis, J. S.
Elworthy, W. H.
Fitzpatrick, E. B. L.
Flashman, C. E.
Fox, H. E.
Grey, W. C.
Hipsley, P. L.
Humphery, E. M.
Langton, W. D.
Latham, O.
Marsh, H. S.
Mason, T. W.
Newman, E. L.
Osborne, J. K.
Plomley, M. J.
Robertson, L. J.
Sadler, H. F.
Smith, S. A.
Suckling, F. M.
Thomson, J. M.
Walton, J. F.
Watson, J. F.
Waugh, R. A. P.
Woolnough, R. E.

1904.

Adams, F. C.
Bell, H. C. R.
Benjafield, V.
Bond, L. W.
Browne, C. S.
Buchanan, G. A.
Chisholm, E. C.
Connolly, T. P.
D'Arcy, Constance E.
Godsall, R. S.
Lethbridge, H. O.
Mawson, W.
Perkins, R.
Phillips, A. B.
Sharp, G. G.
Vernon, M. M.
Vivers, G. A.

1905.

Bligh, E. A. R.
Buchanan, J. D.
Clouston, T. B.
Coen, J.
Culpin, E.
Finckh, A. E.
Goergs, K. R. W.
Grant, W.‡
Griffiths, J. N.
Holland, J. J.
Jones, L.
Kay, S.
Kendall, H. W.
Leslie, J. R.
Mansfield, W. C.
McEncroe, J. M.
McDowall, St. A. W. L.
McDowall, V.
McKelvey, J. L.
Power, J. W.
Roberts, A. J. S. C.
Shellshear, C.
Simpson, F. G. M.
Smith, P. E. W.
O'Reilly, Susannah H.
Ure, Sarah L.
Verge, A.
Vernon, G. H.
Whiteman, R. I. N.
Young, E. H.

1906.

Aspinall, A. J.
Aspinall, Jessie S.
Bell, G.
Binney, Constance C.
Clifford, J. B.
Cowlishaw, L.
Day, E. J.
Donovan, H. C. E.
Doyle, W. O.
Finselbach, F. W. A.
Gibson, D. D.
Hansard, W. W.
Harper, Margaret H.

‡ Admitted ad eundem gradum.

Harris, J. S.
Harris, S. H.
Harrison, E. S.
Hill, J. G. W.
Huggart, W. C.
Johnston, L. P.
Lightoller, G. H. S.
McCulloch, H. T. C.
McKillop, A.
Molesworth, E. H.
Moseley, A. H.
O'Reilly, T. L.
Palmer, C. R.
Palmer, H. W.
Parkinson, T. C.
Pritchard, Alice
Quaife, W. T.
Riley, S. B.
Sapsford, C. P.
Sheehy, W.
Stiles, B. T.
Thomson, Jean G.
Welch, J. B. St. V.
Wherrett, E. A.
Wylie, Mary W.
Willis, C. St. L.

1907.

Binns, W. J.
Bradley, C. H. B.
Cahill, A. C.
Campbell, J. S.
Chapman, H. O.
Craig, F. B.
Deakin, J. E. F.
Diethelm, O. A. A.
Edwards, J. G.
Gilchrist, J. J.
Gillespie, A. P.
Hammand, K.
MacInnes, A.
Mackenzie, A. J.
Maher, C. W.
Moran, H. M.
Ormiston, Martha I.
Parker, R. A.
Paul, G. A.
Poate, H. R. G.
Pridham, H. E.
Renwick, C. S.
Schlink, H. H.
Shellshear, J. L.
Steele, A. B.
Stokes, F. O.
Walker-Smith, H. B.
White, W. J.
Withers, O. E. B.
Vickers, W.

1908.

Allen, H. G.
Archdall, M.
Baret, H. V. D.
Barron, G. M.
Bottrell, E. H.
Brearley, E. A.
Brookes, G. A.
Browne, Elsie F.
Bullock, H.
Butler, A. G.‡
Candlish, R. S.
Coen, B. J.
Collier, F. W. D.
Colvin, A. E.
Cook, S. L.
Cotton, G. R. C.
Dickinson, Evelyn E.
Elwell, L. B.
Fahy, J. F.
Ferguson, E. W.
Flecker, H.
Fox, A. W.
Furber, R. I.
Giblin, W. E.
Graham, D. H.
Grigor, W. E.
Harris, H. J.
Heaslop, J. W.
Heydon, G. A. M.
Hill, D. B.
Hoets, J. W. van R.
Hughes, J. C.
Johnston, H. H.
Lyons, Ettie
Macfarlane, J. S.
Matthews, H. D.
McKillop, L. M.
McPhee, V. J.
Miller, R. C.
O'Halloran, C. M.
Oxenham, H. B.
Patterson, M. S.
Ramsden, E. M.
Ritchie, H. J.
Rogers, F. C.
Rogers, L. H.
Rutherford,
Constance M.
Rutledge, E. H.
Smith, G. K.
Smith, H. C. G.
Smith, K.
Stacy, V. O.
Stephens, F. G. N.
Stewart, C. P.
Talbot, Ethel
Tebbutt, A. H.
Tomlinson, G. L.
Waddy, R. G.
Weedon, C. J.
Welch, K. St. V.

1909.

Arnold, A. C.
Barton, A. D.
Beatty, H. R.
Brierley, F. S.
Brooks, W. S.
Burfitt, Mary B.
Child, Sophia R.
Conolly, H. W.
Croll, D. G.
Dalyell, Elsie J.
Dey, L. A.
Docker, E. N. B.
Dunlop, L. W.
Dunn, A. J.
English, R. J.
Ewing, T.
Fitzhardinge, J. F. G.
Fraser, D.
Golledge, K. A.
Hamilton-Browne,
Elizabeth I.
Larkins, N. C.
Luddy, J. S.
Macintosh, C. L. S.
Mackenzie, D. S.
Maclean, Lilian A.
Marsh, H. T.
Matthews, W. F.
Mobbs, A. W.
Parker, L. R.
Parkinson, H. H.
Parnell, Ethel C.
Parry, E. L. D.
Petherbridge, W. C.
Prevost, R. L. de T.
Priestley, H.
Purves, A. M.
Quaife, C.
Roger, R.
Rorke, S. N.
Schenk, T. W. G. H.
Schmidt, E. T. C.
Sinclair, A. F.
Smith, Clara R.
Smith, C. N.
Storey, J. C.
Veech, M. S.
Whiting, K. M.
Woodburn, J. J.

1910.

Barrow, I. M.
Berge, C. G.
Blumer, G. A.
Clayton, H. J.
Clipsham, W. B.
Davis, N. J.

‡ Admitted ad eundem gradum.

Edye, B. T.
Fitzgerald, M.
Fox, Edith E.
Fox, L. H.
Harrison, B. J. M.
Haynes, A. R.
Holmes a' Court, A. W.
Humphries, H. G.
Jones, S. E.
Lindeman, G. B.
Macartney, G. W.
McIntosh, A. M.
McLean, A. L.
McLelland, R. E.
Markwell, N. M.
Martin, W. W.
Norrie, G.
Nowland, H. H.
Parker, T. E.
Paul, C. N.
Paul, J. H.‡
Pittman, E. E.
Pockley, F. G. A.
Powell, J. W. G.
Robertson, N. K.
Sear, H. R.
Shellshear, W. G.
Smyth, J. S.
Tait, L. G.
Thomson, E. G.
Turner, T. A.
Verge, C. A.
Walker, A. S.
Ward, H. K.
Weedon, S. H.
Wooster, F. C.

1911.

Abernethy, C. W.
Aspinall A. M.
Beazley, R. N.
Blaxland, F. J.
Booth, F. S.
Bourne, H. T.
Bowman, R. McD.
Bridge, N. H.
Bridges, F. J.
Buckley, Emma A.
Burke-Gaffney, A. E.
Burke-Gaffney, Florence C.
Chapple, A. T.
Chapman, A. J. P.
Clatworthy, C. H.
Curtin, A. S.
Curtis, G. C.
Curtis, P. M.
Dawson, A. L.
Dawson, J.
Donaldson, J. E.
Fletcher, W. M. A.
Freeman, Margherita
Frizell, T. J.
Furber, T. M.
Glissan, D. J.
Herlihy, J. D. R.
Hittmann, C. B.
Hodgkinson, H. R.
Hunt, G. M.
Inglis, W. K.
James, J. A.
Kay, W. E.
Kenny, J. P.
Macdonald, Enid C.
Macqueen, R. A. A.
Mason, G. W.
McDonnell, R. V.
Metcalfe, J. B.
Morris, E. S.
Newton, A. J.
Northcott, C. H.
Paton, J. T.
Payne, P. H.
Pitt, C. N.
Pye, C. R. A.
Rich, V. M.
Rorke, F. C.
Sabiel, F. H.
Shearman, C. H.
Sherwin, T. A.
Skirving, A. W. S.
Smith, M. P.
Tansey, J. T. P.
Thompson, F. C.
Tivey, E. A.
Vance, E. B. M.
Vickery, K. F.
Waddell, H. J.
Wallace, R. A. R.

1912.

Boulton, N. P.
Bridge, R. H.
Griffiths, N.
Halloran, G. R.
Hughes, L. H.
Lentaigne, J. G.
McDonald, W. A.
McKenzie, J. B. F.
Mollison, A. J.
Murphy, J. J.
Stafford, H. L.
Walker, C. C. P.

1913.

Ardill, Katie
Bateman, J. E.
Benjamin, A.
Brettingham-Moore, E.
Brunnich, K. F. C.
Byrne, G. C.
Church, J. V.
Coleman, A. H.
Collins, A. J.
David, W. E.
Dunlop, A. T.
Fallon, C. J.
Fetherston, L.
Finley, C. A.
Fisher, E. M.
Fitzherbert, R. A.
Forbes, A. J.
Fowler, C. M.
Gallagher, M. J.
Giblin, E. L.
Gibson, N. M.
Graham, R. V.
Green, R. A. R.
Hair, J. M.
Hardie, J.
Harris, H. R. J.
Hawthorne, H. L.
Holloway, E. S.
Kelly, P. J.
Kennedy, B. C.
Kenny, J.
Kirkland, W. D.
McGregor, R. S.
McKee, J. W. S.
McLelland, H. S.
Manning, G. E.
Molesworth, C. S.
Norrie, H. F. J.
North, R. B.
O'Reilly, M. F.
Pascoe, E. V.
Plant, H. F. H.
Ross, C. C.
Sampson, G. A.
Scott, J. H. V.
Simmons, W. F.
Single, C. V.
Slattery, M. J.
Stanton, A. M.
Teece, L. G.
Thompson, C. W.
Thompson, W. B.
Van Epen, T. W.
Walsh, H. S.
Ward, A. C.
Wassell, C. E.
Webb, J. E.
Willcocks, G. C.

1914.

Alcorn, A.
Alexander, N. M. A.
Anderson, C.
Anderson, J. T.
Balls, R.

‡Admitted ad eundem gradum.

Barton, O.
Beith, J. R. McN.
Blomfield, C. R.
Blumer, S. J.
Bray, G, W,
Brown, W. S.
Browne, D. J.
Buchanan, A. L.
Butler, T.
Carter, R. B.
Chapman, C. L.
Clark, C. A. F.
Clowes, A. S.
Cohen, C. K.
Dark, E. P.
Daly, T. A.
Davenport, P. A C.
Davis, T. R. E.
Dean, A. W.
Donald, W. H.
Duhig, J. J. V.
Duncan, G. M.
Edwards, W. A.
Elworthy, R. E.
Evans, W.
Farrar, J. W.
Finlay, D. F.
Flower, W.
Gaden, K. B.
Goddard, T. H.
Graham, S. M.
Greaves, F. W. B.
Grey, F. T.
Grieve, K. H.
Henry, C.
Jackson, C. P.
Jamieson, J. I. M.
Jekyll, A. C. A.
Jensen, F. J.
Jones, Maude S.
Kennedy, H. McM.
Kesteven, H. L.
Kirkwood, N. E. B.
Lane, R. C.
Lilley, C. M.
Lilley, E. M.
Lloyd, C. H.
Lovejoy, R. A.
McCarthy, F. J.
McLennan. S.
Macdonald, W. J.
Macnamara, L. O.
McIntyre, F.
Machin, A. E.
Malcolm, J.
Manery, W. J.
May, L.
Meehan, A. V.
Meyers, E. S.
Millett, W. L.
Mitchell, P. W.
Murphy, J. A.
Nixon, R. J.
Nye, L. J. J.
O'Riordan. S. M.
Parkinson, C. J.
Parkinson, P. S.
Parry, E. K.
Pigott, L. M.
Pinhey, E. T.
Pockley, B. C. A.
Poulton, R. L.
Power, J. J.
Rayson, H.
Renwick, G. A.
Roberts, A. T.
Royle, N. D.
Smith, D. I. R.
Snow, L. L.
Stack, W. J.
Stafford, S. R.
Stephen, Gladys V.
Sutton, M. G.
Taylor, R. J.
Thomas, H. E.
Thomas, F. S.
Thomson, R. M.
Todd, A. C. R.
Tozer, C. J.
Waine, J. G.
Waldron, G. D. K.
Walker, G. J.
Welch, H. L. St. V.
Wesley, C. H.
Whiting, C. W.
Wiley, C. J.
Willis, H. H.
Wilson, B. G.
Young-Wai, J.

1915.

Adams, C. G.
Allen, C. G.
Armitage, C. H.
Aspinall, A. E.
Aspinall, W. R.
Barbour, E. P.
Bateman, C. D.
Bechtel, F. C.
Blashki, E. P.
Broughton, N. W.
Brown, J. H. B.
Brown, K. S. M.
Byrne, K.
Cameron, G. H.
Carruthers, B. M.
Coghlan, C. C.
Coppleson, V. M.
Curtis-Elliott, F. C.
Davidson, A. M.
Denham, H. K.
Digby, J. L.
Donovan, C. O.
Exton, Harriette M.
Farran-Ridge, C.
Farrar, F. M.
Fenwick, W.
Finlayson, M. R.
Franki, N. H.
Gardiner, S. S.
Gearin, C.
Gregg, N. McA.
Grieve, P. N.
Harris, C. M.
Hawthorne, W. S.
Hay, G. M.
Haynes, R. J.
Hellstrom, C. A.
Hill, G. F.
Hudson, R. H.
Hughes, R. F.
Hunter, J. G.
Hunter, L. J.
Huxtable, C. R. R.
Jeffris, R. E.
Jeffrey, E.
Jones, J. T.
Kelly, A. F.
Kirkland, H. E.
Lance, A. L.
Langan, A. M.
Leeds, R. H.
Little, Elaine M.
Lowe, G. B.
Loxton, E. H.
Mack, B. H.
MacCulloch, J. R.
McMaster, R. M.
Maher, H. O.
Minnett, R. B.
Minty, C. C.
Moreau, S. J. H.
Morgan, I.
Murphy, P. J. B.
Murray, A. W. G.
Murray, C. W. W
Nisbet, A. T. H.
North, H. M.
Nowland, R. E.
O'Regan, S. V.
O'Reilly, Olive K.
Packer, N. E.
Page, W. R.
Parker, K. S.
Paul, A.
Potts, T. K.
Quessy, P. A. L.
Quilty, W. D.
Rae, R. K.
Railton, S. A.
Ratcliffe, S. W. G.
Raymond, A. W.
Reye, A. J.
Robinson, C. F.
Richards, R. W.
Ridler, H. A.

Rivett, Amy C.
Samson, C. M.
Sanbrook, E. A.
Silverton, R. J.
Sinclair, G. W.
Solling, F. P. M.
Stafford, A. L.
Stewart, J.
Tanko, C.
Thomas, A. C.
Tooth, H. L.
Trindall, R. B.
Uren, C.
van Someren, B.
Voss, Muriel D.
Voss, P. E.
Wade, B. G.
Wall, H. A. C.
Winn, R. C.
Woolnough, S. J.
Yeates, W. F. S.
Zions, N.

1916.

Allen, T. G.
Allsop, L. T.
Arnold, G. P.
Barriskill, J. R.
Beale, J. G. M.
Beale, H. L.
Beith, B. McN.
Blomfield, B. B.
Braby, A.
Bray, C. W.
Braye, Helen M. I.
Bruce, H. G. B.
Burfitt, C. A.
Burkitt, A. N. St. G. H.
Cameron W, W.
Clark, H. P.
Cockburn, A. S.
Daniel, P. L.
Davis, D. A. A.
Davis, C.
Dolman, H.
Earnshaw, P. A.
Ellis, O. J.
Faithfull, G. M.
Fitzgerald, E. L.
Frecker, E. W.
Flook, W. K. W.
Foy, D. S.
Francis, R. P. W.
Gardner, R. A.
George, S.
Gillies, H. V.
Haines, C. C.
Hamilton, G. R.
Harris, W. T.
Harrison, J. L.
Harrison, Nellie A.
Howard, A. de S.
Humphries, C. C.
Hunter, R. J.
Jamieson, H. H.
Lamrock, J. J. C.
Lawrance, G. A.
Leahy, H. G.
Leaver, H.
McCaffrey, E. M.
McCredie, D. W.
McCutcheon, J. H. R
McDonald, C. G.
McDonnell, S. A.
McKenzie, A. D.
Maclean, J. M.
Mansfield, T. M.
Marshall, T. E.
Matheson, C. N.
Metcalfe, F. B.
Mitchell, C. A.
Morgan, E. L.
Morris, P. A.
Murphy, A. P.
Noble, R. A.
Oakeley, W. G.
Orr, H. J.
O'Shea, P. J. F.
Parr, T. L.
Pattinson, W. F.
Perry, W.
Quinn, C. R.
Roberts, W. F.
Rodda, F. N.
Rosenthal, C. P.
Scott, R. S.
Short, F.
Sinclair, C. W.
Smalpage, E. S.
Smith, J. W.
Sutton, N. G.
Symonds, H.
Templeman, C. G.
Tillett, J. R.
Traill, A. J.
Trenoweth, F. E.
True, F. E. T.
Utz, L.
Veech, B. A.
Wellisch, G. C.
Wiburd, C. R.
Williams, G. J.
Willis, V. N. B.
Wilson, J. S.
Young, W. R.

1917.

Allport, R. M.
Asher, V.
Badham, C.
Bamber, L.
Biggs, F. E. R.
Crago, P. G.
Cuthbert, H. W.
Dart, R. A.
Dawson, F. E.
Farran-Ridge, T.
Fitzpatrick, E. W.
Gruen, J. A.
Hobson, G. E.
Holland, E. P.
Holmes, G. C. W.
Hope, A. J.
Howell, D. L.
Howell, H. G.
Hudson, A. R.
Kirkland, H. S.
Kortum, L. A.
Larbalestier, L. E. S.
La Touche, W. F. D.
Liggins, F. W.
Macqueen, F. L.
Martin, R.
Matters, R. F.
Moran, A. C.
Murphy, R. J.
Nelson, T. Y.
Robertson, O.
Robinson, A. T. R.
Ross, Mona M.
Rossell, J. McF.
Sandford, Elma L.
Saxby, G. J. M.
Sillar, R. A.
Small, D. S.
Stanton-Cook, L. H.
Stokes, E. H.
Stormon, M. O.
Tunks, O. G.
Wallace, F. H.
Woodward, E. A.

1918.

Aitken, Adele L.
Alexander, C. R.
Asher-Smith, Laira P.
Banks-Smith, R. G.
Barlow, C. D.
Barnet, J. S. F.
Barrack, B. B.
Barry, H. C.
Beavis, W. R.
Bradfield, E. V.
Brett, F. M.
Byrne, E.
Calov, W. L.
Campling, C. R.
Charlton, N. B.
Cook, W. H.
Crawford, A. P.
Crowe, H H.
Daly, H. J.
Dent, R. C.
Dillon, Lurline W.
Douglas, C. N.

Eames, W. L.‡
Edwards, R. C.
Elliott, E. A.
Elliott, G. F. L.
Erby, E. F.
Fletcher, A. R.
Frizell, M.
Ford, J. W.
Gall, L. W.
Garrett, K. M.
Grant, Mavis V.
Gunning, A. P.
Henry, H. de la F.
Herlihy, F. C.
Hogg, J. B.
Hornbrook. J. H.
Hunt, A. R.
Hunter, H.
Kenny, H. J.
Kidston, T. A.
Lawson, J. A.
Luker, A. MacC.
McCloy, Winifred A.
McKee, J.
McLelland, Isabella
Meikle, E.
Mercer, L. D.
Metcalf, A. J.
Milgrove, E. L.
Mitchell, J. A. R.
Mitchell, R. S. R.
Murphy, O. E. J.
Nelson, W. T.
O'Halloran, P. L. A.
O'Neill, V. F. A.
Orr, A. R. S.
Packham, G. B.
Pain, A. A.
Pfeiffer, G. H.
Randall, W. H. N.
Rogers, E. A.
Roper, A. C.
Ross, Marjory J.
Shand, J. C.
Scharfstein, Lottie
Skeoch, H. H.
Tonkin, H. L.
Waddell, F. N.
Whishaw, R.
White, E. F.
Whitfield, S. G.
Wong, R. J.

1919.

Brookes, W. L.
Burns, F. A.
Calahan, D. A.
Craig, W. D. K.
Cooney, T. L.
Darton, W. R.
Davidson, A.
Feather, W. W.
Ferguson, W. J.
Flynn, M. R.
Freeman, T. W.
Hair, G. H.
Hewer, G. F.
Jaede, C. H.
Kennedy, J. A.
Langdon, J. F. B.
Middleton, G.
Mitchell, Brenda A.
Murray, G. A.
McElhone, J. B.
McGregor, K. R.
McGuiness, E. J.
Pittar, R. G. G. A.
Reed, E. B.
Robertson, Enid
Shortland, L. J.
Smith, D. T. R.
Upton, W. C. T.

1920.

Adcock, D.
Allum, A. E.
Armstrong, H. M.
Arnott, R. G.
Beveridge, Lorna D.
Boyle, J.
Brooks, E. J.
Broome, J. R.
Brown, H. J.
Brown, C. V. W.
Connolly, T. J. B.
Cook, C. E.
Cookson, H. G.
Cutler, H. M.
Dwyer, S. K.
Ferris, G. T.
Friedman, E. H.
Fisher, E. F.
Furner, C. R.
Gentile, S. E. F.
Goddard, G. W.
Grieve, H. R. R.
Gwynne, F. J.
Hansman, F. S.
Harvey, W. C. B.
Holland, Llonda L.
Hughes, J.
Hull, W. J.
Hunter, J. I.
Iceton, S. G.
Illingworth, H. T.
Lee Brown, R. K.
Levick, C. B.
Loudon, D. B.
Lynch, R. B.
Maude, J. D.
Maxwell, W. T. D.
Muston, W. K.
McClean, J. R.
McLaren, N. E.
McLaughlin, A. I. G.
Nickson, W. L.
North, A. L.
O'Connor, W. B.
Oliphant, Marie C.
O'Reilly, P. M.
Paine, C. L.
Paling, J. M. A.
Paradice, W. E. J.
Parr, L. J. A.
Porter, H. K.
Prott, H. A.
Rivett, E. W.
Scoles, F. G.
Scott, L. J.
Scougall, S. H.
Scrivener, H. R.
Sheppard, E. McA.
Sherwood, J. E.
Sinclair, J.
Smith, C. R.
Smith, Edna L.
Smith, E. B.
Smith, N. R.
Spence, K. K.
Stark, A. W.
Stevenson, B. W.
Taylor, L. D.
Tillett, P.
Traill, R. C.
Trenerry, E.
Vivian, A. E.
Walker, G. C.
Ward, W. H.
Weaver, R. E.
White, G. B.
Whittle, H. C.
Wilson, V. R.
Woodhill, V. R.
Wyper, Jessie J.

1921.

Addison, P. L. K.
Alexander, J. E.
Allison, J. R.
Anderson Stuart, A. P.
Armstrong, C. J. B.
Bauer, R. F.
Bendeich, J. H.
Best, L.
Boyce, G. F.
Bromley, M. S.
Brown, R. E.
Bull, C. S.
Burstal, A. C. C.
Byrne, J.

‡ Admitted ad eundem gradum.

Carter, A.
Chapman, W. J.
Chenhall, H. W. T.
Clouston, Kathleen
Cook, E. A.
Cumming, F. R.
Cunningham, A. B.
Cunningham, A. J.
Dalton, W. J.
Davis, N. E.
Dive, W. R.
Dodson, G. H.
Donnellan, J. J.
Edwards, A. M.
Fitzsimmons, J. P.
Fitzsimmons, M. F.
Franklin, S. de V.
Fraser, K. B.
Fraser, M. B.
Gall, G. H. H.
Geaney, M.
Genge, F. H.
Gilchrist, A. G. S.
Goard, E. M.
Goldsworthy, N. E.
Green, J. C.
Hales, G. M. B.
Hawke, D. W.
Jacobs, W. V.
Jeffries, J. T.
Kem Yee, J. F.
Lane, M. S.
Lawes, F. A. E.
Leadley, J. H. W.
Little, D. W.
Logan, C. J.
Lynch, F. N.
Morrison, F. A.
Mulhearn, N. St. C.
McAdam, F. V.
McCarthy, E. F.
McClemens, Dorothy
MacDonald, W. M. C.
McKillop, M. J.
McLean, I. A.
McLeod, A. P.
Nette, W. H.
Nimmo, J. R.
Overend, B. R.
Owen, A. B. S.
Paterson, N. R.
Percy, C. E.
Pettinger, C. F.
Pike, E. H.
Piper, K. A.
Pittar, Y. E.
Porter, E. H.
Ratcliff, D. H.
Ryan, W. D.
Ryan, W. E.
Sams, Clara M.
Saunders, G. L.
Stanley, P. H.
Susman, E. L.
Susman, M. P.
Sweetapple, H. A.
Taylor, M. C.
Taylor, H. M.
Thomas, M. H.
Walker, G. R.
Willard, F. T.
Winston, C. E.
Wippell, W. P.
Yum, W.

1922.

Allen, R. A. M.
Annetts, H. A.
Armstrong, E. P.
Arratta, J. A.
Bertram, Mary N.
Binns, J. C.
Boyd, A. S.
Bradley, G. G.
Brake, C. E.
Bray, Mabel I. C.
Breslin, F. L.
Bryant, A. L.
Burrell, A. E. W.
Callen, A. A.
Cameron, S. L.
Chalmers, A. W.
Cooke, B. R.
Coombe, C. W.
Corner, L. S.
Crossin, D. J.
Davy, A. O.
de Burgh, H. M.
de Monchaux, C. F. A.
Dinley, R. P. J.
Duncan, G. J.
Dunstan, C. K.
Edwards, A. T.
Evans, E. F.
Ewan, G. L.
Fenner, N. E.
Fielding, Una L.
Flattery, J. M.
Flynn, J. A. F.
Flynn, T. J.
Foote, L. H.
Forsyth, G.
Fraser, F. W.
Gallagher, W. P.
Geeves, R. C.
George, W. E.
Gordon, J. B.
Green, H.
Hamilton, Ellice E. P.
Hamilton, T.
Harbison, J. K.
Hardy, Ruth
Harper, H. S.
Harwood, H. B.
Heath, L. B.
Helms, Karen
Hennessy, K. E.
Hilliard, E. T.
Hindmarsh, B. F.
Honner, R. St. J.
Hope, Elsie J.
Houen, A. C.
Howell, K. J.
Hughes, T. D.
Huie, J. Z.
Hurman, Edith M.
Hyndes, Katharine
Kerr, W. A.
Kilgour, H.
Kinna, A. L.
Lamb, A. C.
Lawler, N. A.
Locke, K. M.
Ludowici, R. H.
McCann, F. B.
McConnel, Sarah V.
McCoy, H. A.
McCredie, H. A.
Mackey, W. A. A.
Madden, J. P. C.
Magill, D. W.
Maguire, B. F. M.
Manton, W. K.
Marshall, G. E. L.
Minogue, S. J.
Moss, H. St. L.
Murphy, A. H.
Olver, J. R.
Park, A. N.
Paterson, A. E.
Paton, C. N.
Philp, D. M.
Potts, K. F.
Purchas, A. J. M
Radcliffe, D. G.
Reid, J. S.
Roberts, J. L.
Roper, C. V.
Ryan, F. P.
Ryan, H. A.
Ryan, J. R.
Saunders, Ida B.
Schmidlin, F.
Small, T. H.
Stephens, H. S.
Stuart, Adah A. M.
Swanwick, Doris I.
Tahmindjis, G.
Taylor, J. P.
Thompson, G. S.
Verbrugghen, A. H. P. E.
Walker-Smith, A. B.
West, H. J.
Whitfield, R. A.
Williams, R. S.
Wilson, K. J. G.
Yates, A. C. K.
Zimmerman, C. J.

1923.

Abbey-Wiesener, F.
Abramovich, S.
Allard, E. V.
Amphlett, Julia L.
Anderson Stuart, B. P.
Andrew, M.
Armstrong, H. G.
Ashby, H. L.
Asher, Maisie H.
Back, R. F.
Ballantine, Jane M.
Barkley, A. O.
Barnett, H.
Barton, N. D.
Bates, D. C.
Braddon, P. D.
Brown, U. L.
Burnett, R. K.
Bye, W. A.
Byrne, V. C.
Campbell, R. I.
Carroll, H. B.
Carruthers, D. G.
Champion, C. G.
Charlton, P. L.
Chesterman, J. N.
Clowes, A. L.
Coles, J. H.
Colwell, A. R.
Cooper, A. G. S.
Cramsie, J. H.
Currie, L. T.
Cuthbert, N. M.
Darragh, W. C.
Davey, R. D.
Dawes, S. R.
Day, W. C.
Dods, L. F.
D'Ombrain, A. W.
Downes, C. J.
Duke, C. L. S.
Duke, R. F. E.
Dun, C. W. S.
Durie, E. B.
Elliott, M. E. H.
Elliot-Smith, M. H.
Elphick, V. R.
Erby, S. T.
Evans, A. S.
Finlay, C. C.
Finley, C. C.
Fleck, C. C.
Fletcher, R. H.
Freeborn, W.
Frew, C. A.
Golding, W. H.
Gors, Madeline N.
Grogan, G. U.
Guiney, C. M.
Hales, M. F.
Halliday, J. H.
Hamilton, A. R.
Hamilton, M. M.
Hankins, S. H.
Harpur, M. D. H.
Harris, R. G. S.
Harrison, A. Q. O.
Henry, R E.
Hewitt, G. H.
Hiatt, S. C. M.
Holliday, R. B.
Horn, H. W.
Horn, J. L.
Hotten, W. I. T.
Hudson, K. D.
Hunt, P. S.
Jenkins, A.
Jeremy, R.
Kendall, A. E. H.
Kennedy, A. J.
King, J. M. C.
Kinsella, V. J.
Klein, K.
Lawes, C. H. W.
Leah, J.
Levy, J.
Lewis, B. H.
Lukin, F. W. R.
Luscombe, C. W.
Lynch, A. J.
Magnus, A. N.
Maitland, H. L. C.
Matheson, W. H.
Mater, O. W.
Meredith, J. B. W.
Miles, E. H.
Minahan, M. A.
Money, R. A.
Moppett, W.
Morgan, J.
Mulvey, R. D.
Murphy, E. L.
Murray, A. J.
Murray-Will, E.
McCredie, F. C.
Macdonald, R. H.
McFadden, A. S.
Macgregor, P. N.
Nash, R. J.
O'Connor, H. H.
O'Leary, A. A.
Opit, L.
Ostinga, A. J.
Parker, D. W. L.
Parkes, J. A.
Paton, R. T.
Pirie, J. M. G.
Ponton, R. G.
Pritchard, D. A.
Puckey, Mary C.
Punch, T. S.
Pyne, Teresa M.
Quinn, R. G.
Quinn, R. T.
Rankin, R. L.
Raymond, R. L.
Riley, B. M. B.
Riley, B. W. B.
Schwartz, E. G.
Sheehy, M. M. M.
Shepherdson, R. F.
Shineberg, S.
Shute, R. B.
Solomon, H. J.
Steel, E. A.
Steel, R. S.
Stephen, B. A.
Stevenson, R. J.
Stobo, A. J. H.
Stobo, Jean S.
Stobo, Joyce S.
Stormon, E. A.
Tarleton, A.
Taylor, H. J.
Thomas, A. S.
Thompson, J. G.
Vallack, R.
Vickery. C. E.
Vickery. D. G. R.
Walch, J. H. B.
Walters, C. J. M.
Watson, A. L.
Williams, D. A.
Williams, P. M.
Wise, A. G.
Witts, F. E.
Woods, J. M.

1924

Allen, S. D.
Anderson, H. W.
Archbold, G.
Ashby, G. W.
Bancroft, Mabel J.
Banks, J. M.
Barclay, F. E.
Barnes, J.
Barnet, T. M.
Barry, K. L.
Bayliss, C. G.
Bevington, W. M.
Black, Thelma
Blackburne, A. J.
Blakemore, C. G. H.
Blakemore, J. H.
Bolton, G. A.
Briggs, W.
Broughton, J. W.
Bulteau, A. W. J.
Byrne, T. P.
Byrnes, G. J.
Castleden, Elsie M.
Chaffer, A. E. F.
Claremont, L. F.
Clement, Edith.

Clough, G. M.
Cole, C. R.
Collins, J. F.
Connor, W. V.
Corin, K. R.
Crakanthorp, J. S.
Crawford, C. G.
Cribb, H. B.
Cuthbert, Grace J.
Davidson, C. H. M.
Delaney, J. J. P.
Delprat, T. D.
Denneen, M. S.
Diamond, L. B.
Dive, W. H.
Dixon, P. V.
Donaldson, W. S.
Dowe, P. C.
Downward, C. A.
Duggan, A. R. H.
Earlam, M. S. S.
Edwards, C. M.
Egan, E. C.
Ellerker, Marjorie E.
Finlayson, N. B.
Firkin, F. L.
Firth, W. B.
Fitzgerald, A. J.
Florance, F. C.
Flynn, J. J. W.
Flynn, L. R.
Fowles, D.
Fox, Marion G.
Fry, W. B.
Furness, A. S.
Galbraith, T.
Gearin, J. J.
Geoffroy, A. J.
Gibson, W. L.
Gillies, G. R.
Goldberg, S.
Goldman, J.
Graham, A. W.
Gray, A. W. W.
Gribben, J.
Hall, G. B.
Hall, T. M. S.
Hamilton, J. B.
Harlock, L. A.
Harris, C. W.
Hewitt, T. G.
Hill, H. R.
Hollingworth, H. M.
Howell, F. J.
Howes, Jeannette K.
Hudson, K. A. K.
Hunter, G. T.
Hyndes, P. F.
Jackson, R. J.
Jobbins, L. T.
Jones, F. M. C.
Keirle, N. A. D.
Kelly, G. G.
Keys, R. A.
Kilgour, K. A. M.
Kirkpatrick, E. R. G.
Kristenson, R. J. C.
Lahz, R. S.
Laidley, J. W. S.
Law, T. B.
Letters, N. I
Lewis, A. R.
Maddox, J. K.
Magee, Linda V.
Main, A. W.
Main, J. M.
Malcolm, R. J. W.
Meacle, N. H.
Miller, I. D.
Miskle, C. P.
Moore, B.
Moran, H. E.
Morgan, A. D.
Munro, F. V.
MacCallum, W. P.
McCulloch, J. F.
McDonald, E. E.
Macdonald, W. L.
McDonnell, J. P. C.
Mackerras, I. M.
McKay, Frances C. B.
McKie, W. M.
McLean, G. A.
MacMahon, Lucy G.
MacVean, C. B.
Noad, K. B.
Nolan, G. R.
O'Donnell, J. M. A.
Outridge, L. M.
Owen, H. M.
Park, W.
Pearson, H. R.
Perdriau, O.
Playoust, R. A.
Puckey, Selina G.
Rainbow, J. M.
Ralston, J. W.
Rickard, R. V.
Ross, Heather H.
Rutherford, K. P.
Scobie, D. C.
Shallard, K. B.
Smith, A. V.
Smith, C. V.
Standish, W. A.
Stayner, F. E.
Stephen, R. L.
Stephens, J. G.
Stevenson, R. B. C.
Stewart, D. M.
Stormon, P. J.
Street, T. R.
Studdy, A. S. B.
Sundstrup, H. A.
Sword, D. C. C.
Taylor, G. C.
Tearne, Joy D.
Thompson, J. C.
Traill, J. E.
Trenerry, F.
Tunley, L. W.
Underwood, C. T.
Wagner, J. G.
Walker, W. J. O.
Waterhouse, A. S.
Williams, H. B.
Woodhead, J. N.
Wooster, G. B. R.
Yeldham, A. E.

1925.

Abramovich, L.
Alexander, J. K.
Allen, J. C. B.
Allen, F. T.
Anderson, P. M.
Arnott, D. W. M.
Arnott, H. R.
Ashton, H. D.
Barrett, D. F.
Baxter, E. J.
Benjamin, N. F.
Bennett, A. G.
Boag, J. F.
Boddington, C. B.
Bray, G. W.
Bryant, V. J.
Buddee, F. W.
Burgess, T. W.
Chambers, G. A.
Clark, Alice A.
Clifton, V. R.
Conolly, W. A.
Cooper, A. L.
Cook, B. A.
Cousins, G. J.
Coyne, F. R.
Dalgarno, Marjorie C.
Dart, J. L.
Davies, W. L.
Donnellan, J. J.
Douglas, R. E.
Douglas, W. J. F.
Downes, G. B.
Eakin, M. J.
Edwards, J. H. D.
Egan, E. J.
Emmett, J. A.
England, Theodora M.
Figtree, E. R.
Findlay, J. P.
Fisher, W. E.
Fothergill, W. L.
Fraser, D. A. S.
Gissane, W. C.
Glasson, R. M.

Goldrick, V. T.
Gourlay, Gwladys D.
Graham, I. A. D.
Grainger, F. T.
Greenaway, T. M.
Gregg, A. E.
Halberstater L.
Halliday, G. C.
Hanson, H. V.
Hardie, J. P.
Hardwicke, G. A.
Harrison, H. H.
Hart, A. H.
Hay, V. C. L.
Heath, A. A.
Hishon, M. J.
Holcombe, T. E. Y.
Holt, J. A.
Hoskins, A. E. R.
Hughes, R. T. C.
Janes, A. F.
Johnson, H. W.
Johnston, H. L.
Keatinge, Leila K.
Kennett, G. H.
King, W. W. H.
Kirkland, K. L. H.
Kite, M. G.
Lansdown, M. V.
Lawson, C. A.
Le Cappelaine-Taylor, R. S.
Little, W. N.
McCaffery, C. J.
McIntosh, J. J.
McKeon, M. L. D.
Machin, W. F.
Macindoe, N. L.
Maltby, R.
Markell, P. J.
Marshall, S. V.
Maxwell, D. S.
Mayes, A. D. A.
Mitchell, H. G.
Morey, B. R.
Morony, G. T.
Morris, G. B.
Muller, R. A.
Nicholl, F. L.
Nihill, R.
Norton, C. H.
Oag, H. S.
Oakeshott, J. B.
Oxenham, A. F.
Pearce, T. F.
Pearlman, H.
Pearlman, S.
Perkins, R. R. M.
Phillips, J. R.
Power, H. H.
Pye, A. D. D.
Reisz, L. R.
Rich, H. G.
Richeard, J. H.
Roberts, H. S.
Russell, R. H.
Salter, A. E. H.
Sandes, S. G.
Sherwood, N. L.
Shipton, Eva A.
Simpson, B. E. C.
Sinclair, B. A.
Smith, W. C.
Solomons, N. S.
Spearman, H. L.
Squire, Doris W.
Stanley, W. A.
Steele, S. C.
Tarlinton, K. F.
Thompson, R. W.
Thorp, J. H.
Todd, G. S.
Trainor, D. C.
Unwin, M. L.
Voss, K. B.
Vote, J. A.
Walch, C. M.
Welsh, A. M.
Whitesides, A. L.
Wiles, C. A.
Wilkinson, H. J.
Wilson, H. F.
Wilson, J. N. H.
Wilson, W. R.

1926.

Abbott, G. S.
Abbott, J. H.
Abdullah, A. D.
Anderson, L. R.
Armstrong, A. C.
Baker, J. R.
Balzer, J. C.
Barry, A B.
Belisario, J. C.
Biggs, T. J.
Black, J. R.
Boesen, C.
Bolger, T. N.
Boyce, C. R.
Buckingham, R. E.
Burne, A. R. K.
Byrne, J. M.
Callow, F. H. M.
Clayton, G. E. B.
Collins, K. J.
Colvin, C. S.
Croft, R. W.
Culey, A. C.
Darton, J. K.
Davis, K. J. B.
Day, Emily M. A.
Dickson, I. T.
East, A. R.
English, W. G.
Faulder, K. C.
Felstead, Muriel A.
Findlay, A. P.
Finn, H. C.
Foley, H. J.
Forbes, B. R. V.
Forster, C. McD.
Francis, N. W.
Fraser, Louie M.
Free, E. G.
Garner, J. V.
Geaney, N.
Gibson, L. W. N.
Gleeson, W. S.
Godsall, J. R.
Golding, F. C.
Goode, C. J. F.
Graham, C. S.
Green, A. K.
Harris, G. T. H.
Hayes, G. S. S.
Healy, Jean F. H.
Heffernan, P. G.
Hill, L. G.
Hooper, I. G.
Horniman, R. V.
Howe, E. J. G.
Howe, G. L.
Hoskisson, Dora A.
Hudson, Mary J.
Hull, E. D.
Hungerford, Doreen A.
Hunt, Elinor S.
Jabour, L.
James, S. G.
Jones, R. S.
Levings, E. W.
Lieberman, H. B.
Lilley, A. B.
Loewenthal, L. S.
Longworth, R. E.
Lorger, A. E.
Lumley, G. F.
MacMahon, E. G.
MacMahon, J. S.
Mallam, H. R.
Manion, S. A.
Marshman, E. A. C.
Martell, A. M.
Maxwell, R. A.
McEwen, R. J. B.
McHardy, C. A.
McKellar, C. C.
McQuiggan, H. G.
McStay, L. L.
Miles, T. W.
Mills, Dorothy I.
Moir, A. E. M.
Moon, A. A.
Nothling, O. E.
O'Brien, C. R.

O'Donoghue, F. M.
O'Hanlon, K. C.
O'Sullivan, E. J.
Paterson, R. F.
Peck, Grace J.
Perkins, R.
Perry, E. F.
Playoust, Gabrielle B.
Potiris, M.
Power, T. F. W.
Price, A. V. G.
Punch, F. M. G.
Quayle, A. F.
Rawle, G. J.
Rawle, K. C. T.
Roberts, F. G.
Robertson, Fanny C.
Rock, H. O.
Ross, D. M.
Russell, J. D.
Ryan, E. J.
Sandrey, J. G.
Shallard, B. T.
Shannon, J. R.
Shappere, A. J.
Sillar, K. I.
Sim, C. R.
Sippe, C. H.
Smith, A. F.
Smith, J. M.
Smith, K. S.
Spark, R. J. H.
Spedding, R. L.
Spencer, W. M.
Stanley, R. G.
Staples, E. H.
Steigrad, J.
Stevens, H. E.
Stocks, A. W. J.
Street, J. B.
Symington, N. J.
Taylor, H. C.
Thomson, Vida M.
Uhr, C. W.
Vickers, A. R. S.
Voss, Florence M.
Walker, Addie
Walker, J. F.
Wallace, K. S.
Watkins, E. R.
Wharton, Joyce H. W.
Wheelihan, J. M.
Wilcox, Rita
Wilkinson, F. O. B.
Williams, Gwyneth E.
Wilson, G. B.
Wilson, M. G.
Winning, Kathleen M.
Woodland, L. J.
Worrall, R. L.

1927.

Arnold, W. J.
Bellingham, F. A.
Benz, G. D. C.
Blackall, M. K.
Bohrsmann, G. T. H.
Brodziak, I. A.
Brown, I. M.
Bull, I. L.
Burton, G. L.
Cameron, D. A.
Canny, A. J., B.Sc.
Chenhall, F. N.
Cronin, M. J.
Dent, J. C. A.
Ducker, A. L.
Eizenberg, H. J.
English, P. B.
Erby, A. B.
Geikie, G. C.
Ginsberg, M. W.
Guinane, J. V.
Hardy, M. N.
Holt, W. G.
Jones, E. B., B.Sc.
Kelly, J. A.
Lawrie, C. M.
Lewis, D. H.
McEncroe, F. J.
McGeorge, J. A. H.
Magill, W. L.
Maher, A. O.
Mayes, B. T.
Millar, D. F.
Morrow, A. W.
Murray, R. E.
Newton, W. N.
O'Brien, J.
Platt, A. E.
Rau, N.
Redshaw, G. M.
Ross, G. A.
Russell, G.
Rutherford, L. O.
Sheehan, W. B. J.
Smith, W. F.
Steele, F. G.
Stening, G. G. L.
Telfer, A. C.
Ternes, A. C.
Thompson, G. A.
Thoms, J. A.
Vout, L.
Walker, M. F. E.
Walker-Taylor, P. N.
Whittemore, J. B.
Williams, M. A.
Windeyer, B. W.
Wing, L. W.

1928.

Appel, G. H., B.Sc.
Biggs, T. R.
Blumer, A. C.
Bradley, G. R.
Breden, N. P.
Brown, D. R.
Child, A. G.
Clemens, K.
Clements, F. W. A.
Cook, L. J.
Cottrell, J. D.
Coyle, W. T.
Cummins, G.
Delamothe, P. R.
Dilger, R. F.
Doyle, P. H.
Gammie, C. I.
George, N. F.
Goulston, E. H.
Harbison, V. R.
Hawker, J. K. A.
Henderson, J. H. B.
Houston, H. K.
Irwin, R. S.
Jones, K. O.
Kee, H.
Kenny, R. H.
Kershaw, M. E.
Lane, A. S.
Langford, W. E. E.
Laverty, C. R. M.
Lazarus, J.
Lipscomb, G. T.
Lyon, M. J.
McDermott, C. A.
McDonald, K. D., B.A., B.Sc.
Mackenzie, E. F.
Maclean, J. S., B.Sc.
McManamey, J.
Mahon, T. P.
Morgan, M. B.
Murphy, H. C.
Murray, R. M.
Nolan, J. D.
Osborne, J. W.
Piccles, J. W. L.
Pye, W. O.
Rennie, H. M.
Robertson, M. R.
Ross, A. M.
Saleh, M. G.
Scott, R. B.
Segal, R.
Sender, I. H.
Smith, F. W.
Stevens, S. G.
Sweetapple, A. G.
Thomson, G. M.
Uther, F. B.
Waddington, R. J.

Williamson, W. S.
Wilson, F. H. H., B.Sc.
Yarrad, F. C.

1929.

Abbie, A. A.
Accola, J. B.
Anderson, E. H.
Armstrong, T. M. J.
Audley, W. E.
Barry, T.
Baylis, Edna I.
Bernard, C. F.
Bray, Sylvia D.
Callose, A.
Carseldine, M. W.
Constable, C. J., B.Sc.
Cooper, B. A.
Dalton, R. T.
Denning, B.
Edwards, C. C.
Fisher, J. H.
Fitzgerald, C. E.
Grant, A. M. B.
Grey, W. S.
Harbison, B. L.
Henry, J. T.
Inglis, A.
Julius, S.
Kelly, R. W. G.
Kennedy, R. T.
Lawrance, K. G.
Lee, D. H. K.
Lovell, S. H.
McClelland, H. W. H.
McDonald, A. M. D.
McKinnon, M. C.
Maffey, R. E.
Maitland, D. G., B.Sc
Perrett, D. G.
Phillips, G. E., M.Sc.
Ping, A. M.
Pottinger, G. W.
Roberts, W. M.
Saxby, H. M.
Shayler, W. E.
Sheldon, R.
Sillar, D. B.
Spark, E. W.
Spark, T. E. H.
Stanley, J. J.
Taylor, C. W.
Taylor, J. T.
Thomas, I. G.
Turnbull, H. I.
Walker, N. A.
Ward, J. T.
Wilson, J. B.
Wiseman, J. E.

1930.

Anderson, D. J.
Armstrong, K. B.
Barry, J. P.
Bayldon, F. W.
Bell, J.
Bradfield, S. G.
Broome, K. H.
Burns, C. M.
Clements, N. J.
Clouston, T. M.
Cohen, R. S.
Connolly, E. P.
Cramp, C. O.
Cunningham, N. C.
Dittmar, F. C. S.
Drew, W. R. M.
Flynn, F. S.
Gaffney, T. J.
Ginsburg-Lapin, M. A.
Gordon, C. P.
Gunther, C. E. M.
Heighway, Freida R.
Hewitt, L. E.
Hobson, A. F.
Hogg, J. E. P.
Horsley, C. H., B.Sc.
Huntley, R. C.
Kelleher, F. J.
Larkin, E. H.
McCarthy, C. M.
McCormack, P. E.
McGrath, W. S.
McIlrath, Muriel B.
MacKellar, D. G.
MacMahon, C. H. M.
MacMahon, Dora K.
Meares, S. D.
Nelson, S. G., B.Sc.
Newton-Tabrett, A. E.
Owen, A.
Pittar, C. A.
Quilter, J. W.
Rawle, R. M.
Roberts, C. E. E.
Ross, A. W.
Rowohl, Willa
Saxby, N. H. B.
Shorter, A. A.
Spencer, S. L.
Starr, K. W.
Tremayne, J. H. R.
Walker, E. L.
Ward, J. J., B.Sc.
Warden, D. A.
Wearn, A. A.
Wright, R. G.
Yeates, R. A. M.
Yeates, R. H.

1931.

Ada, W. M.
Anderson, J. I. H.
Bassetti, J. A.
Balzer, N. F.
Beattie, G. R.
Branch, A. I.
Brown, T. V.
Corlette, E. L.
Corlette, N. A. C.
Corlis, W. L.
Devenish-Meares, M. C.
Douglas, J. R. S.
English, J. C.
Fraser, W. H.
Furner, C. W.
Gundelach, R. H.
Holmes, T. A. G.
Kirtle, Patricia
Lloyd-Williams, E. H. V.
Macourt, Alice M.
McGarrity, K. A.
McNaught, I. W.
Meurer, T. C.
Pearce, H. G.
Quinlan, V. H. S.
Ramsden, M. M.
Ratner, J. L.
Richardson, K. S.
Rofe, H. A. F.
Rosen, E. N.
Saunders, A. C.
Short, D. N.
Smith, A. W.
Sofer Schreiber, M.
Speight, R. J. J.
Stabback, R. J.
Swinburn, R.
Tannahill, R. W.
Tonkin, T. F.
White, H. N.
Williams, S. C.
Wood, C. H.
Wyndham, N. R.

1932.

Adam, G. S.
Beaumont, J. R. B.
Birchall, Ida L.
Bryan, S. W.
Budge, A. G. C.
Burfitt, J. F.
Claffy, F. P. C.
Collins, E.
Cowdroy, T. F.
Crisp, A. C.
Cunningham, W. D.
Dance, G. B.
Donnelly, Monica F. S.
Donovan, K. C.
Edwards, M. L.
Fagan, K. J. B.
Hambrett, H. W. S.
Harris, G. M.
Henry, A. V.
Henry, Marjorie E.

Hiatt, L. P.
Hogg, G. C. H.
Holmes, R. M. G.
Hudson, C. P.
Hughes, K. T.
Johnson, A. S.
Langton, C. J. D.
Lipscomb, J. F.
Metcalf, A. W.
Morey, M. R.
Morton, C. R.
Myers, W. K.
Pollock, J. L.
Price, J. W. L.
Ritchie, T. J.
Rundle, F. F.
Selby, C. H.
Smith, F. D.
Spence, Laura W.
Stening, S. E. L.
Stuckey, E. S.
Theile, E. F. H.
Uren, H. K.

1933.

Brent, R. H.
Drummond, M. T.
Gordon, N. A.
Kingsley, J.
Laurie, Elizabeth F. L.
Lowe, J. W.
Millard, P. T.
Smith, I. L.

Faculty of Medicine

UNDERGRADUATES, 1933.

FIRST YEAR.

Abbott, J. H. P.
Alexander, M. S.
Allsopp, R. J.
Armati, L. V.
Balthasar, A. P.
Bannister, J. H.
Barr, K. A.
Barrett, A. K.
Bartrop, N. W.
Basil-Jones, B. J.
Beatty, J. C.
Beet, L. L.
Bellamy, H.
Bilton, J. H.
Blashki, L. P.
Bodley, P. E.
Bond, J. A.
Bracken, D. C. G.
Brandt, D. S.
Brierley, F. A.
Brodie, G. M.
Brodsky, A. G.
Bulteau, V. G.
Burfitt, D. I.
Burniston, G. G.
Burt, L. I.
Byrnes, F. C.
Cahill, J. B.
Cahill, R. L.
Cains, L. J.
Campbell, W. H.
Clarke, F. G.
Collins, J. G.
Condon, R. D.
Corlis, G. C.
Cranna, M. M.
Cummine, H. G.
Dakin, W. P. H.
Davidson, C. G.
Davis, E. L.
Dick, J.
Diethelm, A. E.
Drabble, F. K. C.
Duncan, I. L.
Fennell, T. J.
Fiaschi, E. B. A.
Finckh, D. A.
Fowles, W. L.
Friend, K. J.
Furber, R. W.
Gemenis, A.
Gilbert, C. H.
Gill, P. W.
Gillies, D. N.
Gillies, P. C.
Goodman, Y.
Goulston, S. J. M.
Graham, F. W.
Hains, J. I.
Hall, G. V.
Hambridge, R.
Hammond, C. W.
Haynes, J. B.
Hazelton, A. R.
Hendry, P. I. A.
Hennessy, R. A.
Herlihy, G. M.
Hill, K. H.
Hinder, D. C. C.
Holme, J. L.
Holt, I. W.
Hoy, R. J.
Hughes, D. A.
Hughes, W. H. C.
Hunter, L. C.
Isbister, J.
Jagers, L. J.
Jeffery, L. P. H.
Johnson, A. M.
Jones, A. K.
Jones, M. W.
Jury, L. R.
Kelf, I. L.
Lees, J. W.
Lloyd Jones, R.
Lockley, R. P.
Lyttle, J. P.
McGovern, J. E.
Mackenzie, J. K.
Mackisack, F. M.
McLaren, W. W.
Manning, W. K.
Marsh, S. H.
Matthews, J. R.
Moxham, L. A.
Moyes, J. M.
Noble, A. J.
O'Driscoll, F. P.
O'Keeffe, E. F.
Oldham, J. M.
Parle, F. S.
Paton, J. S.
Paul, J. A.
Pilcher, K. E.
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Owen, F. L.
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Young, F. S. P.

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Dowling, J. L.
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Eastaugh, E. J.
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Fison, D. C.
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Gee, A. H.
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Heffernan, E. C.
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Tomlinson, P. A.
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Wherrett, S. W.
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Barling, E. V.
Barry, H. C.
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Boxall, J. S.
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Fox, N. L.
Frost, A. D. J.
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Joseph, M. R.
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O'Neill, N. E.
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Parker, A. H.
Parton, A. L.
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Saunders, C.
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Flashman, J. A. F.
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Yeates, J. M.

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Birchley, H. J.
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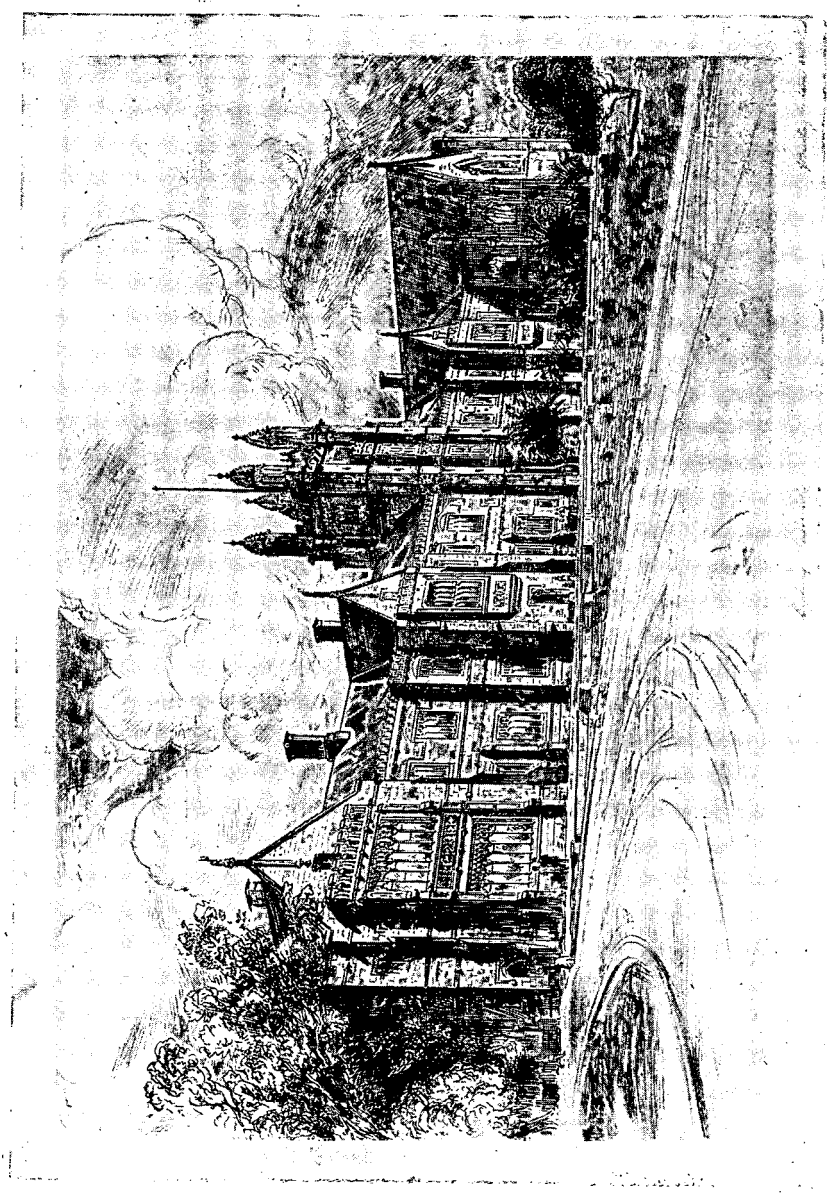
ERRATA.

On page 116, for W. Bagnold read W. Bagnall.

The headings on pages 157, 159, and 161 should read "Scaling the Academic Mont Blanc."



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