British Medical Journal

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THE MEDICAL CURRICULUM REPORT

Last week we published an abridged version of the report of the Conference on the Medical Curriculum held on the initiative of the University of London and composed of teachers representative of that university, the Universities of Oxford and Cambridge, the two English Royal Colleges, and the Society of Apothecaries. This Conference was set up in December, 1932. At almost the same time the Council of the British Medical Association appointed a Special Committee to consider the subject of medical education, which contained representatives not only of teachers, but of general practitioners and those carrying on practice in several special branches of medicine. The report of that committee was published in April last year, and was subsequently accepted by the Representative Body of the Association and reprinted as an Association pamphlet. These two reports together constitute such an authoritative pronouncement on the course of study that should be pursued prior to entry upon medical practice, and on the examination tests that should be applied before, during, and after completion of that course, that they must carry the greatest weight with the General Medical Council, with universities, and with all teaching, examining, and licensing bodies, and must influence, if not determine, the decisions on these matters which will be arrived at in the imminent future. Together with Dr. Etienne Burnet's report on "Medical Education and the Reform of Medical Studies" to the Health Organization of the League of Nations (October, 1933), and the final report of the American Commission on Medical Education (1932), they form the most important survey of the whole field that has ever been undertaken.

It is a matter for great satisfaction that the findings of all these bodies have so much in common. The close resemblance of the main points in the League of Nations report to those in the British Medical Association's report was noted in our columns; and it may now be seen, as perhaps might have been expected, that the correspondence between the present report of the Conference and that of the Association is even closer. The influence of the latter on the former is very plain: with one exception the suggestions and recommendations of the two reports may be described as roughly identical. There are small differences in nomenclature and classification of subjects of study. There are matters of detail which are mentioned or amplified in varying degree, some in one report, some in the other. So too there are felicities of phrasing peculiar to each. But, broadly, each report recognizes the merits of the British system of medical training which distinguish that system from others; they point out the same defects as requiring correction, and suggest remedies for these defects of an essentially similar kind. The Association's report aims at such "a co-ordinated course of study as will by its mental discipline make the student a really educated person and not merely a skilled technician." The Conference believes that "by developing at all points fields of association, his mind may acquire that kind of culture which survives the forgetting of facts."

To these ends certain things are essential. The commencement of the medical curriculum proper should be held to begin with the systematic teaching of human anatomy and physiology, and before that time the student should be shown to have received a somewhat higher degree of general education than the present minimum and to possess a sufficient knowledge of the pre-medical sciences, biology as well as physics and chemistry, including the elements of organic chemistry. This involves a slight postponement, in some cases, of the age at which strictly medical education may begin. The Conference recommends definitely that this should not be before the age of 18. Further, "subjects" must not be treated in separate compartments, but must be dovetailed into a connected "course." This means freeing some of the pre-clinical subjects from some of their detail, especially for examination purposes, and making them more alive by illustration and comparison with living material and with pathological defect. The institution of an introductory psychological course is regarded as essential, and an excellent syllabus for this is suggested. The need for attention to the psychological and the preventive aspects of medicine throughout the course is emphasized. The relation of the special departments to the general course is dealt with by both reports, but that of the Conference does not mention so prominently the subject of physical methods of treatment as does that of the Association, and perhaps the important matters of genetics and growth receive insufficient notice.

There is no need here to describe further the suggestions, whether as to curriculum or examinations, on which there is a general and happy agreement. No doubt all those interested will study them carefully in both reports now that they can be compared. The slight differences in presentation and emphasis will be found most interesting and instructive. The one main difference, however—though even this, at bottom, is more apparent than real—deserves attention. It relates to the final examination and to the last few months of study. The reports agree that the course of fifty-seven months should not be lengthened. That of the Association suggested that Part I of the final examination, written and oral in the main clinical subjects, might be taken after forty-eight or fifty-one months of study, that the last six or nine months of the course should comprise alternative methods of acquiring responsible practical experience under supervision, and that Part II of the final examination should be oral and clinical only, and relate to the studies undertaken during this last period. Difficulties arising from this suggestion were pointed out, but were held not to be insuperable. The report of the Conference contemplates no such

period within the five years' course and would make Part I of the examination deal with medicine, surgery, and pathology, and Part II with obstetrics and gynaecology, paediatrics, and public health (including forensic medicine), both parts, of course, being written and oral tests. Each of these suggestions has important merits and requires careful consideration. There can be no doubt that the teachers are naturally more conscious of the difficulties inherent in the Association's proposal; but the general practitioners attached great importance to it, as remedying a practical defect of which they were keenly aware. The Conference report adds that "a medical student after passing the final examination should spend at least six months as a resident medical officer in an approved hospital before commencing private practice," and looks forward to this being made a statutory obligation in the near future. Moreover, it is not open to a student to take Part I of the final examination before the full minimum course is completed, and, though he *may* take Part II at the same time, the Conference contemplates that this would usually be taken somewhat later. These requirements, it may be pointed out, really amount to a prolongation of the course of medical training.

We understand that actual proposals for the revision of the General Medical Council's resolutions in regard to professional education will be made to that Council next week by its Curriculum Committee. It is much to be hoped that that committee has been able to give adequate consideration to the report of the Conference, and that serious attention will be paid to the suggestions made by the Conference, and in the report of the B.M.A. Committee, with regard to the pre-registration course and to conditions of the final examination.

SUPERVISION OF MILK PASTEURIZING PLANTS

The desirability of protecting the community from milk-borne disease is so obvious that public health authorities, particularly in the United States, and to an increasing extent in this country, are recommending that all milk destined to be consumed in the liquid state should be submitted to pasteurization or some other adequate form of heat treatment. Numerous objections have been raised to pasteurization. Many of them, put forward often by responsible but ignorant persons, need not be taken seriously. Some, however, demand attention. The first objection is on economic grounds. It comes mainly from the small producer-retailers who, by selling milk directly in the raw and potentially dangerous state, are able to make a greater profit than they would do if they had to send it into a pasteurizing depot to be rendered safe. The answer to this objection is that there is no reason why the public health should be endangered in order that a small section of the farming community may benefit financially.

The second objection is that pasteurization is said to diminish the nutritive value of the milk. If this was really true it would be of great importance, and would have to be weighed very carefully against the known advantage conferred by pasteurization in protecting against milk-borne disease. The evidence, however, which has been summarized by Stirling and Blackwood of the Hannah Dairy Research Institute, and by the Committee on Cattle Diseases of the Economic Advisory Council, suggests that the nutritive damage to the milk caused by pasteurization is remarkably small. The energy value of the milk remains unchanged, and the only important alterations produced appear to be a slight falling off in the proportion of the soluble calcium and phosphorus salts, and a variable, but generally considerable, degree of destruction of the vitamin C. Except for infants and very young children fed almost exclusively on a milk diet, it is doubtful whether these slight changes can be regarded as of any practical importance. So far as infants are concerned, the current practice is to supplement any type of milk diet during the first year or so with orange juice and, during the winter months, with cod-liver oil. These additions are almost as necessary with raw as with pasteurized milk, since even raw milk is but a poor source of vitamins C and D.

The third objection is that pasteurization in practice is often very inefficiently performed. While admitting the truth of the accusation, it must be pointed out that this objection is based on practical and not on theoretical grounds. That is to say, it is an objection not to pasteurization itself, but to pasteurization as too commonly performed. The answer to this objection is to remove its cause. Steps should be taken to prevent faulty pasteurization, and to ensure that all milk sold as pasteurized has in fact been adequately processed. Too often at present so-called pasteurized milk has been processed in plants of imperfect design by unintelligent and unskilled operatives. What is required is a much stricter control by the local authorites over both plant design and plant operation. A very important step in this direction is the publication by the Ministry of Health of a report on the "Supervision of Milk Pasteurizing Plants."[1] Sir Weldon Dalrymple-Champneys, who has been responsible for drawing up the report, has afforded an extraordinarily lucid account of the technical processes involved in pasteurization, and a very practical set of instructions to sanitary inspectors charged with the surveillance of pasteurizing plants. Many inspectors are ignorant, almost unavoidably so, of both fundamental principles and technical details, and the present report will be of considerable help towards educating them in this direction. The adequate pasteurization of milk is of real importance, and it is hoped that local authorities throughout the country will realize the desirability of insisting in future on a far higher standard of efficiency than has hitherto been generally attained.

[1] Reports on Public Health and Medical Subjects. No. 77. Report on the Supervision of Milk Pasteurizing Plants. By Sir Weldon Dalrymple-Champneys, Bt., M.A., D.M., F.R.C.P. London: H.M. Stationery Office. 1935. (1s. 3d.)

THE ABUSE OF CODEINE

The work done by the League of Nations to suppress the traffic in drugs of addiction is generally agreed to be an outstanding example of valuable international co-operation. The work is peculiarly difficult, however, because the problems change in a kaleidoscopic fashion. Thus, a few years ago the chief problem was the protection of China against the alkaloids produced in the factories of the West, whilst to-day China has got her own factories, and there is now the problem of protecting the West against this new source of supply. Not only do the channels of the trade continuously shift, but new drugs are constantly being produced. The course of events is nearly always the same. The indefatigable ingenuity of the organic chemist produces a new variant of the morphine molecule, and the manufacturer with his inexhaustible optimism announces to the world that a drug has been discovered with all the valuable qualities of morphine and none of its defects, and in particular that the newcomer will never produce habit. In due course the habit-forming qualities of the drug are discovered and estimated, and, as often as not, they are found to be even more intense than those of morphine, whilst in the interval, before control has been fully established, the dope merchants of the world rejoice in an uncontrolled morphine substitute. The League of Nations has, however, grown wise to this dodge, and the present regulations arrange for the control of any new morphine derivative that is at all likely to produce addiction. There remains a very large and legitimate demand for sedative cough mixtures, and the retail sale of codeine has been exempted from control so as not to interfere unnecessarily with the work of chemists and doctors. This decision was based on what seemed to be conclusive evidence. Codeine had been used in therapeutics for a hundred years, and there was no reliable evidence that it could produce addiction. It was reasonable to believe that after such a period of trial there was nothing new to learn about the properties of the drug. The results of this step were remarkable, since, after a year or two, it was found that half the morphine isolated from opium was being converted into codeine. There was, however, a legitimate reason for this, because the freedom of codeine from retail control made it the drug of choice for all sedative cough tablets sold otherwise than under a doctor's prescription. The magnitude of the sale of codeine nevertheless caused some concern, because it was obvious that if any mistake had been made in estimating the addiction potentialities of codeine, then a very large hole would have been left in the net of drug control. Reports from Canada[1] now show that the perverted ingenuity of the drug addict has been underestimated. Codeine has a relatively feeble euphoric action, so feeble indeed that the addict can get little satisfaction from the drug taken by mouth. Large doses of codeine taken hypodermically or intravenously can, however, act as a morphine substitute for the addict. Tests on addicts have shown that the relative potency of morphine and codeine is about five to one. The doses of codeine taken are very large, and one case is reported in which 80 grains of codeine were injected hypodermically every day. At present there are only a few records of genuine codeine addicts—that is to say, persons who always have used codeine as distinct from those who have taken to codeine as a substitute for morphine or heroin. But it is not safe to assume that this will continue to be the case, because drug habits spread chiefly by imitation of the habits of others, and there is no guarantee that a codeine habit may not become established once the technique gets generally known. Very fortunately the League of Nations has maintained control of the wholesale trade.

[1] "The Use and Abuse of Codeine in Canada," *Canadian Med. Assoc. Journ.*, April, 1935, p. 424.

AGRANULOCYTOSIS

We recently reviewed[1] the present state of knowledge of this new or lately recognized disease, with particular reference to its aetiology. It is now the subject of a Ministry of Health Report[2] compiled by Dr. E. W. Adams, who concisely marshals the facts to be found in the already extensive literature of this disease. As a full record of what is known and a fair statement of what is believed this report will be of considerable value, especially since by far the greater part of the published clinical reports is in the literature of other countries; from now on it should be unnecessary for any writer on this subject to append a bibliography of his own. It is perhaps inevitable in an official report that conclusions should be cautious, and evidently the value of pentose nucleotide in treatment and the possible effect in producing the disease of sedative drugs other than amidopyrine itself are still in such doubt as to preclude any other sort of judgement. But amidopyrine has been so clearly incriminated that a pronouncement from the Ministry of Health might have been expected to recommend means by which its danger can be met. It is really idle to suggest that patients taking this drug for any length of time should have periodical blood counts, if only for the reason (a fact not overlooked in this report) that many of them are taking it unknown to themselves or their doctors. A list of twenty-one proprietary preparations containing amidopyrine is given in the report; it "does not purport to be exhaustive," and indeed is not, since it omits four which were named in this *Journal*. One preparation in this list is a patent medicine which, according to its advertisements, contains yeast, vitamins, and "other valuable elements prescribed by leading specialists." This "tonic" evidently produces a sensation of well-being because it contains—besides yeast—amidopyrine, phenacetin, and bromides, and its more persevering consumers are in danger of developing agranulocytosis, possibly with fatal results; at least one severe case due to its consumption has been published. Without entering into the wider question of how the unexampled liberty accorded to patent medicine vendors in this country should be curtailed, it may reasonably be urged that this is a case in which immediate action should be taken, as it easily could be, since the matter is not one involving fresh legislation. It is only necessary that amidopyrine should be scheduled by the

[1] *British Medical Journal*, March 2nd, 1935, p. 425.

[2] A Review of Certain Aspects of a Recently Recognized Disease of the Blood (Agranulocytosis or Agranulocytic Angina). By E. W. Adams, O.B.E., M.D. Report No. 76. H.M. Stationery Office. 1935. (6d.)

Poisons Board, and then at least its use will be brought under control. The medical profession, now becoming better acquainted with agranulocytosis, will then be in a position to decide whether the risks of giving this drug are or are not counterbalanced by any advantages it may possess over other antipyretics and analgesics. It is quite conceivable that minor degrees of interference with marrow function may be more common than is now known, and may follow shorter periods of administration, with a distinctly unfavourable effect on the course of infective conditions yet without the characteristic and catastrophic features of agranulocytic angina. Such considerations, or even the remote risk already recognized, may lead eventually to the complete abandonment of this drug, but in the meanwhile there is everything to be said for prohibiting its sale to the public.

BOILED CABBAGE

Three hundred years ago, in his *Garden of Health,* containing the virtues and properties of all kinds of simples, William Langham wrote of boiled cabbage that it was "very good with beef." To modern people the cabbage is probably the least interesting of all culinary vegetables, and there is an idea that when boiled it has lost all its vitamins, or, to use an older word, its "goodness." An interesting short communication was made at the meeting of the Section of Therapeutics and Pharmacology of the Royal Society of Medicine, which was held in the laboratories of the Pharmaceutical Society on May 14th, on the subject of vitamin A in cooked vegetables. Miss Katharine Coward, D.Sc., said that her purpose had been to discover whether boiled cabbage had the useful properties for nutrition which were sometimes claimed for it. One experiment which was on record showed that after boiling for twenty minutes—the period for which cabbage is generally boiled—the resulting loss in vitamin C was something like 80 per cent., and this and other work had made it clear that vitamin C in foodstuffs could not resist the ordinary temperatures of cooking. This worker's particular attention, however, had been drawn to vitamin A. She had taken a number of rats which were given a vitamin A free diet until they stopped growing. When that occurred they were divided into three groups, one of which was given a certain amount of fresh cabbage every day, another the same amount of boiled cabbage, while the third was given cod-liver oil of a well-determined potency, the rest of the diet in all cases remaining vitamin A free as before. After three weeks the increase in weight of the animals was determined and averaged for each group, the animals which had received cod-liver oil serving as the control. There was found to be no difference between the fresh cabbage and the boiled cabbage; in both cases, as expressed in international units, the result worked out at 9 units per gram. Again, with carrots the response was the same for the fresh and the boiled vegetable, working out at 18 units, while in the case of runner beans, actually the boiled legume had a higher value than the fresh, though Dr. Coward thought that this must be due to some experimental error. According to the table which she produced the vitamin A value of cabbage and carrots, whether fresh or boiled, is greater than that of dairy milk or Jersey milk. It is much less than that of butter, of course, but in assessing the value of these foods regard must be paid to the amount it is possible to consume at a meal, and as much more boiled cabbage than butter can be eaten, the value of the former is proportionately enhanced. The same applies with even more force to cod-liver oil, a highly concentrated source of vitamin A, but not one that can ordinarily be consumed as freely or as pleasantly as the homely vegetable.

GRAVESEN ON PULMONARY TUBERCULOSIS

At the annual provincial meeting of the Tuberculosis Association held recently at Oxford, Dr. J. Gravesen reviewed the methods of treatment at Vejlefjord Sanatorium in Denmark since 1907. Gravesen succeeded Saugmann as medical superintendent of this well-known institution in 1922, and his almost unique position, that of an "operating" tuberculosis physician, enhances the interest of his findings and conclusions. The material is somewhat "selected," for the sanatorium caters chiefly for private patients; this fact, however, probably accounts for the achievement of a 100 per cent. follow-up. Gravesen first pointed out the erroneous views which exist in regard to the theoretical basis of surgical methods in the treatment of pulmonary tuberculosis. The beneficial effect is not due to compression, which is injurious to tuberculous tissue, nor to immobilization, as considerable respiratory movement still occurs in the lung treated with an artificial pneumothorax. No significance, moreover, could be attached to associated vascular changes. The aim of surgical treatment, he stated, is "to create better conditions for the spontaneous retractive power," and he suggested "relaxation therapy" as more accurate nomenclature. Cavity formation, being a step in the demarcation of the tuberculous process, indicates the moment for surgical treatment; hence we should really speak of "cavity therapy." Interventions like thoracoplasty, which make considerable demands on the resistance of the patient, should, in contrast to artificial pneumothorax, only be carried out when signs of definite fibrosis are present and when the "immuno-biological reaction" (that is, the sedimentation rate and blood picture) is favourable. Gravesen then proceeded to show how the surgical treatment of pulmonary tuberculosis is being revolutionized by the introduction of the "selective" principle, the aim of which is to obtain relaxation of the diseased region alone. In artificial pneumothorax this is often achieved by cauterizing adhesions. In thoracoplasty the principle has led to the evolvement of a smaller partial operation—thus increasing the number of operable patients and reducing the operation risk. He suggested "cupuloplasty" as a suitable name for this type of operation, which, however, is not always effective, because the apex of the lung is held up by ligaments stretching from the parietal pleura to the front of the cervical and upper dorsal vertebrae. Hence an apicolysis may have to be added; and this is now being done extra-fascially in Norway, although Gravesen himself finds the extra-pleural method satisfactory. Apicolysis with plugging he reserves for those

in whom age, special complications, or the refusal of the patient render thoracoplasty impracticable. Interruption of the phrenic nerve Gravesen condemned as an operation from which he rarely saw benefit, except in small basal cavities. His statistics are of great practical importance, and are based on 909 patients who had been subjected to operation or to artificial pneumothorax from 1907 to 1932, sputum-negative patients and those whose outlook was already hopeless being excluded. Before the introduction of adhesion cauterization 21.6 per cent. of patients treated by artificial pneumothorax, in whom it remained contra-selective or ineffective, were fit for work five years after discharge from the sanatorium: the latter operation and thoracoplasty have raised this percentage to 50.8. A total of 319 thoracoplasties show a mortality at six weeks of 12 per cent. in the first hundred and of 8 per cent. in the last hundred; and, moreover, the introduction of the partial operation has resulted in a much smaller mortality after two, four, and six years —11, 21, and 22 per cent. respectively for the total and subtotal, and 4, 7, and 7 per cent. for the partial operation. Gravesen estimated that the last hundred patients in the total series will show a 74 per cent. return to work after five years as compared with 37 per cent. in the first hundred. In contrast he recalled the published mortality figures of cavernous cases (of which a small number only had been treated by surgical methods, including artificial pneumothorax)—70 per cent. dead (Germany) after four years, and 90 per cent. (America) after five years. Inevitably points arise in Gravesen's communication which require amplification. "Relaxation" substitutes one term for another and does not entirely explain the dynamics in the chest, nor account for the rapid constitutional improvement seen in some cases of artificial pneumothorax; moreover, the part played by atelectasis, massive or partial, in collapse therapy can no longer be ignored. Gravesen's conception of cavity formation does not perhaps include the familiar "acute" type. And lastly, the condemnation of phrenic interruption did not appear to be based on a distinction between the permanent and temporary operation or between the immediate and remote results. Nevertheless, in spite of some obvious empiricism in the surgical treatment of pulmonary tuberculosis, Gravesen's paper illustrates what can be achieved for the patient with chronic tuberculosis by a logical mind making judicious use of the methods available.

RECURRENT MENSTRUAL PURPURA

Drs. Philip Ellman and F. Parkes Weber[1] describe the case of an otherwise apparently normal woman, aged 58, who ever since the age of 47 has been subject to recurrent purpura limited to her lower extremities. Her menopause was between 52 and 53 years of age. Until the menstruation ceased her purpuric attacks might have been regarded as "supplementary menstruation," afterwards as "vicarious menstruation." Before the menopause the purpura appeared in small spots only, but after the menopause the attacks became worse, recurring at first every month, but later on every two months. Together with the purpuric spots (macules) there were then large ecchymotic patches on the portions of the extremities below the knees, and sometimes swelling of these parts accompanied the attacks. The attacks usually last about a week before the purpura begins to fade. The fading takes place suddenly, and in about two weeks as a rule all traces of the purpura have disappeared. Mental shock can apparently make the attacks worse. The type of purpura most resembles the mixture of erythema and purpura (purpuric erythema) known as the Schönlein-Henoch or "anaphylactoid" type, for which an allergic or anaphylactic causation is probable. Examination of the patient's blood has shown nothing special excepting a slight diminution of thrombocytes. Treatment by calcium gluconate (intramuscular injections of 5 c.cm. of a 10 per cent. solution) and glandubolin-Richter (intramuscular injections of 1 c.cm.) has undoubtedly done good. The authors have briefly reviewed the literature and theories relating to purpuric and other eruptions occurring in connexion with menstruation and pregnancy.

[1] *Brit. Journ. Derm. and Syph.*, May, 1935, xlvii, 197.

COMPENSATION FOR WEIL'S DISEASE

Under the Workmen's Compensation Acts a workman can claim compensation for personal injury by accident arising out of and in the course of his employment. If a workman dies, his widow can be awarded £300, with £100 extra for each dependant child. The legal interpretation of "accident" has gone far beyond the ordinary man's idea of what constitutes an accident. It has been settled for many years that infection with bacilli in the course of employment is an accident. In Brintons *v.* Turvey (1905) the House of Lords awarded compensation to a wool-sorter who was infected by anthrax. In Walker *v.* Mullins (1908) a gardener was given compensation for tetanus, and workmen have also succeeded in claims for compensation on the ground of infection by ringworm from cattle and, only two months ago, typhoid contracted from infected food served to the crew in a steamship. The latest disease to be added to the category of "accidents" is Weil's disease, the organism of which is *Leptospira icterohaemorrhagiae*. The widow of a sewer-worker who died recently of it was awarded £600 compensation on behalf of herself and three young children in an arbitration heard by Judge Dumas at the Westminster County Court on May 17th. The employers suggested in defence the possibility that the jaundice from which the workman died after ten days' illness had been due to tonsillitis, but Dr. C. M. Wenyon said that Weil's disease might produce sore throat in its early stages, and Dr. Hamilton Fairley gave evidence that a sewer-worker was liable to be infected from an abrasion or by the membrane of the nose or mouth, and that 10 to 30 per cent. of the rats in London, mainly in the sewers, had been found to carry *L. icterohaemorrhagiae*. The disease is not often encountered in human beings in England, though it is common enough in Holland, probably because of the great extent in that country of polluted canals infested with rats. Dr. Fairley, describing the present case in the *Journal* last July,[1] said that during the past few years there had been a regular series of infections

[1] *British Medical Journal*, 1934, ii, 10.

among sewer-workers, especially among those whose duty it was to repair the brickwork and who were consequently liable to injury of the hands. In a leading article in the same issue[2] we mentioned that cases have also been found among flushers. The disease probably enters the human body from the slime covering the bricks above water-level, as this is constantly contaminated with the urine of infected rats. We also suggested that it would be interesting to discover whether the cases observed in sewers presented a limited outbreak or whether they had occurred unrecognized ever since sewers were first constructed. Now that the disease has appeared as a menace to employers, research will probably receive a stimulus. Preventive efforts may possibly be directed towards the cleansing and disinfection of brick surfaces before breaking-up work is done ; the protection of workers' hands from exposure, especially when the skin is broken ; and the elaboration of a vaccine.

NOISE ABATEMENT EXHIBITION

The Prime Minister will open, on May 31st, at the Science Museum, South Kensington, a noise abatement exhibition which is being arranged through the Anti-Noise League under the chairmanship of Lord Horder. The exhibition will remain open throughout June, and will probably conclude with special meetings and conferences during the last week. It is proposed that the exhibition shall present a comprehensive survey of the whole problem of noise in its many aspects. The practical co-operation of a number of institutions and public bodies has already been obtained, including the Ministry of Health, the Air Ministry, the National Physical Laboratory, the Post Office Research Laboratories, the British Broadcasting Corporation, the Industrial Health Research Board, and a number of industrial research laboratories and firms. Dr. G. W. C. Kaye of the National Physical Laboratory is chairman of the research and development section of the exhibition, Professor Cave-Browne-Cave of the transport and machinery section, Mr. Hope Bagenal of the building section, and Sir Henry Richards of the organizing committee. The Science Museum has placed generous accommodation at the disposal of the Anti-Noise League, and it is hoped to display many interesting exhibits of noise abatement appliances. A small demonstration house is to be erected which will incorporate the latest architectural and building designs and materials for sound-proofing and sound absorption. There will be a number of demonstrations, including silenced pneumatic drills, motor-cycles, typewriters, vacuum cleaners, electric motors, circular saws, and so on. The latest devices for the measurement, analysis, and filtering of noise will receive attention, and experiments on the value of ear defenders, the masking of noises, the effect of noise on loudness of speaking, and the use of noise-level alarms will claim the interest of most people. The effect of noise on output in industry will be illustrated by the results of recent investigations. Further information may be had from the General Secretary, the Anti-Noise League, 66, Victoria Street, S.W.1.

[2] *British Medical Journal*, 1934, ii, 27.

ROYAL AUSTRALASIAN COLLEGE OF SURGEONS

One session of the meetings held in Melbourne from March 4th to 8th, in connexion with the opening of the new building of the Royal Australasian College of Surgeons,[1] was devoted to the subject of post-graduate training. Sir Holburt Waring, President of the Royal College of Surgeons of England, outlined the scheme which is being developed in London and emphasized the importance of a special hospital with a special staff for post-graduate study. It was announced at the meeting that Prince Henry's Hospital, after certain necessary additions had been effected, would be used as a centre of post-graduate study in Melbourne. One of the week's ceremonies that deserves mention was the presentation of the Jacksonian Prize for 1933 to Mr. E. S. J. King by Sir Holburt Waring. In the last twelve years this prize has been won three times by Australians, Mr. King having won it also in 1930, a feat that has seldom been equalled since the prize was instituted in 1800. At the annual meeting of the College on March 8th, Mr. R. B. Wade was elected President in succession to Sir Henry Newlands. Mr. Wade has been lecturer in clinical surgery and in children's diseases at Sydney University since 1925, and in 1932 was appointed president of a medical board of New South Wales.

LISTER MEDAL

The Lister Medal for 1936, which is given in recognition of distinguished contributions to surgical science, has been awarded to Sir Robert Muir, M.D., F.R.S., professor of pathology in the University of Glasgow, who will deliver the Lister Memorial Lecture at the Royal College of Surgeons of England in 1936. This is the fifth occasion of the award, which is made by a committee representative of the Royal Society, the Royal College of Surgeons of England, the Royal College of Surgeons in Ireland, the University of Edinburgh, and the University of Glasgow. It is interesting to note that it is now exactly seventy-five years since Lister became professor of surgery in the University of Glasgow.

A special meeting of Fellows of the Royal Society of Medicine was held on Tuesday last, May 21st, Dr. Robert Hutchison presiding, for the purpose of making elections to the Honorary Fellowship. Five new Honorary Fellows were elected, in each case unanimously—namely, Sir StClair Thomson (who was president of the Society in 1924-5), and the following distinguished foreign professors: Sigmund Freud, of Vienna ; Joseph Jadassohn, of Zurich ; G. R. Minot, of Harvard ; and R. F. J. Pfeiffer, of Breslau.

The Executive Committee of the Imperial Cancer Research Fund announces that William Ewart Gye, M.D.Ed., of the National Institute for Medical Research, Hampstead, will succeed Dr. J. A. Murray, F.R.S., as director of the Fund on the latter's retirement at the end of this year. Dr. Gye, whose publications on cancer are well known, was formerly a member of the staff of the Fund.

[1] See *British Medical Journal*, May 4th, 1935, p. 930.