

2. Organic heart troubles with hypertension.
3. Arterio-sclerosis (except in the latest stages).
4. Angina pectoris (during intervals between attacks).
5. Bright's disease and high arterial tension.
6. Arthritis: gout, rheumatism, neuralgia, neuritis, polyneuritis, neurasthenia, hysteria, functional neuroses.
7. The nervous affections of the menopause.
8. Various dermatoses, urticaria and pruritus.
9. Basedow's disease.

Contra-indications.

Low arterial tension.
Advanced arterio-sclerosis.
Acute gout and rheumatism.
Valvular heart disease with insufficient compensation.
Fatty heart.

Undoubtedly the most important field for the radio-oxygen bath is that of early arterio-sclerosis and increased arterial tension. I believe that during recent years, coincident with the decrease in acute "plus formation" gout and the marked increase in irregular "minus excretion" gout, there has been a distinct increase in the actual number of cases of arterial hypertension; but whether this be true or no, there are now many more such cases detected than formerly, largely owing to the provision of accurate recording instruments. If physicians, especially at spas, fail to note this indication, they may easily administer treatment which puts up the blood pressure with most unfortunate results. In arterio-sclerosis the oxygen bath seems to exert a mild gymnastic effect on the vessel walls, which opposes the progress of the disease and relieves the heart. The addition of oxygen to natural radio-active waters not only enhances their normal efficacy but also makes for much greater safety in their administration. "Accidents" at bathing stations have mostly been due to excessive arterial tension, especially in elderly patients.

The effervescing saline bath, known as the "Nauheim," the ingredients of which are salt, calcium chloride, and carbonic acid, frequently, in my experience, raises blood pressure, and I strongly advocate the use in hypertension cases, where the salines are thought necessary, of oxygen instead of CO₂. In conclusion, I would emphasize the following points:

1. The oxygen bath has been proved by many distinguished observers to exert a marked influence in the treatment of disease.
2. By its tonic action on the heart and the simultaneous reduction of blood pressure its use is definitely indicated in those cardiac and kidney cases where hypertension is present.
3. Through its remarkably tonic and soothing action on the vasomotor nervous system and especially its definite effect in producing calm natural sleep, it is of great value in the important group of functional neuroses, especially those of the climacteric.
4. By its blanching and sedative action on the skin, it is of considerable service in many hyperaemic and irritable skin affections, especially the various dermatoses.
5. The radio-oxygen bath (by reason of the effects of radium emanation in greatly increasing the output of body toxins through the lungs, skin, and kidneys) possesses much greater efficiency in gout, rheumatism, arthritis, neuritis, and auto-intoxication than the oxygen bath alone.
6. The natural radio-active waters, such as those of Buxton, Bath, Wildbad, and Gastein, can by this simple addition be made much more effective in the treatment of many troublesome ailments.
7. This combination is of exceptional value in cases of gout and allied diseases in which there is increased blood pressure, takes away the risk of giving mineral baths to such cases, and makes an ideal bath for elderly and delicate patients.
8. The "Nauheim" effervescing saline baths show greatly improved results where hypertension is present from the substitution of the radio-oxygen for CO₂.
9. The Schwalbach (or effervescing iron) bath, so efficacious in utero-ovarian troubles, is more effective with oxygen than CO₂ on account of the soothing tonic effect of the former—a matter of great importance in cases where the sympathetic nervous system is so often hypersensitive and disordered.
10. The substitution of oxygen for CO₂ avoids the tendency of the latter to produce dyspnoea, vertigo, precordial anxiety, and palpitation due to inhalation of carbon dioxide.
11. The inhalation of the radio-oxygen emanation from the surface of the bath is especially helpful in asthma and other respiratory troubles, and generally in all diseases amenable to radio-oxygen therapy.
12. The evidence points to the conclusion that the radio-oxygen bath has a prolonged, not a transitory, influence on troubles connected with the circulation.

This treatment can be carried out in any house where there is a bathroom; either as the radio-oxygen bath, or as the oxygen bath alone.

DISCUSSION.

Dr. N. S. FINZI (London) said that he had no experience of the radio-oxygen bath, but radium emanation in solution in the treatment of arthritis and chronic gout was certainly effective, especially in advanced and crippled conditions. He protested against the charges made by some makers for the hire of their radio-apparatus. In one case he calculated that the hire of an apparatus giving 10,000 Maché units yielded a return of 7,000 per cent. per annum to its maker. He thought also that makers of such apparatus should state the exact amount of its radium content.

Dr. G. E. BOWKER (Bath) asked whether the use of oxygen in the manner indicated would not displace the precious gases, such as "niton" or radium emanation, which Sir William Ramsay had found in considerable quantities in the waters of Bath. The oxygen would be obtained at the expense of the radio-activity. He questioned also whether some benefit was not derivable from the nitrogen in the gas, containing as it did a large amount of neon.

Professor E. RUTHERFORD (Manchester University) asked what definite evidence there was that the radio-activity was responsible for the benefits of the baths. It seemed to him that proof was lacking that the beneficial effect of the waters was due to radium. Had they ever eliminated the emanation from the water and then attempted to use the water therapeutically? In view of the advertisement which radio-active spas were receiving, the public had a right to know by definite experiments whether the effects of the Bath and Buxton waters were really connected with their radio-activity or were due to less sensational forces.

Dr. F. HERMAN-JOHNSON (Darlington) had seen good effects from radium water, particularly in neurasthenic cases, but in one case at least some amount of gastrointestinal irritation afterwards occurred, although whether or not this was due to the treatment he could not say.

Dr. ARMSTRONG replied.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

SUDDEN DEATH IN AORTIC STENOSIS.

H. W. R., aged 18, carter's boy, who had been apparently in perfect health and had never required medical attendance, dropped dead on May 13th. Death, which was quite instantaneous, was not preceded by a meal or any severe exertion. The only premonitory symptom seems to have been a transient syncopal attack about two hours before, from which he quickly recovered, going on with his work as usual.

The only lesion found *post mortem* was that the aortic valve segments were somewhat thickened and slightly nodular, but not seriously deformed or at all adherent to each other; the orifice would only admit the tip of the index finger. There was no evidence of regurgitation, and the valve held water quite well. The heart was not enlarged, and the muscle appeared quite healthy. There was no sign of any vegetations likely to cause embolism. It appeared that he had applied for entry as a stoker in the Royal Navy on April 10th, and was rejected. I wrote to the examining officer, Staff Surgeon Adrian Forrester, who reported that he had found a systolic murmur in the aortic area, and also in the mitral region, which could be heard outwards nearly to the mid-axillary line. The lad's physique and general health were good.

I think the case worthy of record, as aortic stenosis is not common at such an early age, and does not usually cause sudden death without previous symptoms. Moreover, there was a complete absence in the history of any previous rheumatism or illness of any kind. The amount of stenosis and alteration of the valve segments was quite slight, and did not appear sufficient to account for such a sudden syncope.

Penshurst, Kent.

W. CHARRINGTON WOOD,
M.D.Lond., F.R.C.S.Eng.

"indigestion and dilatation of the stomach," for which he had been medically attended, and the nature of his illness may have been known to his relatives and communicated by them to the jury, thus supplying some ground for the guess in the verdict. All this is conjecture on our part, but, in the complete absence of information as to the facts of the case, we can do no more.

If there was no medical history communicated to the jury, their boldness in conjecturing "dilatation of the stomach" indicates over-confidence in their own judgement. In any case, their verdict can hardly be regarded as satisfactory by the Registrar-General. A *post-mortem* examination by a medical practitioner would have placed the verdict on a proper basis of fact, or expert opinion, instead of the conjectures of a jury of laymen.

CANDIDATURE OF COUNTY COUNCILLOR FOR CORONERSHIP.

AMIL.—A county council will in the near future elect a coroner for one of its divisions. A., who is a member of the council, contemplates resigning his seat and become a candidate for the office. Is there any legal barrier against the council electing A. to the coronership?

* * We do not think there is any legal barrier to the course proposed to be taken by A., and we rather think it has been taken more than once in previous elections to coronerships. Protests—informal in any case—have been made in some cases, but not as far as we know with success. Nor does the question ever appear to have been tested in the law courts or even by appeal to the Home Secretary. Probably the would-be protestant was advised that he could not hope to sustain his objection as a question of strict law. The Local Government Act, 1888, which is the only statute dealing expressly with this point, merely directs that the county council shall appoint "a fit person not being a county alderman or a county councillor." This appears to have been strictly construed as applying only to the position of the person elected at the time of his actual election. If the object of the restriction in the Act was to prevent the possibility of a seat on the council being improperly used as a lever to procure an appointment in the gift of the council, it cannot be said to be very effective. Perhaps, however, the object was merely to prevent the two offices being held simultaneously by the same person. That, at all events, appears to be its only effect in practice.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred :

M.B., B.C.—A. M. Bodkin, J. S. Burn, J. W. H. Chun, M. Donaldson, R. Ellis, J. R. Marraock, C. H. G. Philp, E. Rayner.
M.B.—W. Broughton-Alcock.
B.C.—A. E. Bonny, J. W. Dew, W. J. Fison, E. F. W. Grellier, J. M. Jarvie, W. L. Johnson, C. B. Wainwright, L. M. Weeks, H. F. Wilson, C. R. Wright.

MANCHESTER UNIVERSITY.

Munificent Legacy.

UNDER the will of the late Mr. John Hall, of St. Leonard's-on-Sea, brother of the late Sir Samuel Hall, whose estate has been valued for probate at £44,978, the sum of £40,000 has been left to accumulate at compound interest and to be devoted on the death of the survivor of his two nieces to the foundation of two professorships and various scholarships at the Victoria University, Manchester. The sum of £20,000 is to be for the founding of a Samuel Hall Professorship in Chemistry, £15,000 for a Samuel Hall Professorship in Philosophy, £2,500 for not less than two Samuel Hall Scholarships in Chemistry, and £2,500 for not more than two Samuel Hall Scholarships in Philosophy, all to be held on such terms and conditions as the Council of the University with the consent of the testator's trustees may determine. The Professor of Philosophy is to deliver once in each year a free public lecture to be called the "Hall Oration of Philosophy" on the study of philosophy. In addition to the above, the residue of the testator's property will go to the Victoria University for John Hall Scholarships in such scientific subjects as the council and the trustees may decide.

QUEEN'S UNIVERSITY, BELFAST.

THE Executive Committee of the Better Equipment Fund in connexion with the university has obtained the offer of 74 acres for an athletic field for £10,100. The place is known as New Forge, and for some 2,000 feet is bounded by a canal, so that it will be possible to engage in boating as well as other sports; it stretches on the west towards the Malone Road. Formerly it was used as a polo ground. Lord Deramore has offered to sell the fee simple, and the athletic field committee, which has been searching for a suitable site for some years, strongly recommends the acceptance of the offer; £9,500 of the purchase money has been already raised, and the balance can be obtained from the Better Equipment Fund.

APOTHECARIES' HALL, IRELAND.

THE following candidates have been approved in all subjects of the examinations indicated :

FIRST HALL.—S. Stritch, S. Ram Rao, D. Campbell.
SECOND HALL.—S. Ram Rao, U. A. Kynvett-Hoff, D. Campbell.
FINAL.—C. D. Downing, J. A. M'Conochie, M. Keogh.

Public Health

AND

POOR LAW MEDICAL SERVICES.

DISTRICTS OF POOR LAW OFFICERS.

J. S. C. writes that he is a district medical officer, and under his contract with the guardians certain parishes are allotted to him by name. Another parish for the purpose of rating is included with these, but is not mentioned in his contract, but he is constantly receiving orders to attend paupers in the latter parish. He asks whether he would be within his rights in refusing to attend these cases on the ground that the said parish is not mentioned in his contract.

* * Under the Poor Law orders a district medical officer on his appointment must have allotted to him a specially defined district. His contract should clearly denote this, and according to the same orders he cannot be required by the guardians to attend any cases residing outside that district. If our correspondent's facts are correct—he should make quite certain that they are—he would be justified in declining to attend the cases he demurs to under his contract.

Obituary.

DR. THOMAS LAWES ROGERS died on August 7th, at his residence in Eltham, at the age of 83. He was the third son of Mr. J. W. G. Rogers, of Alvediston, Wilts. He received his medical education at St. Bartholomew's Hospital, and took the diploma of M.R.C.S.Eng. in 1853. After acting as assistant medical officer to the Rainhill County Lunatic Asylum, Lancashire, for a year, he joined the first battalion of the Coldstream Guards, and served throughout the Crimean War; he received the medal and clasp for his services. In 1858 he retired from the army and became medical superintendent of the Rainhill County Asylum. In 1860 he took the diploma of M.R.C.P.Lond., having taken the degree of M.D. St. Andrews in 1857. He was president of the Psychological Section of the annual meeting of the British Medical Association at Liverpool in 1883, and retired from his appointment at the asylum five years later. He afterwards did much work for the Charity Organization Society, and for the Workshops for the Blind of Kent. He joined the committee of management of the Seamen's Hospital Society in 1893, and thereafter took a most active part in the work of the society. He was one of the most regular in attendance at the board of management and at various subcommittees until his health gave way in 1909, after sixteen years of service. He then became a vice-president of the society. On the occasion of the foundation of the London School of Tropical Medicine, in 1898-9, he was a member of the committee which met at the Colonial Office to arrange the details; he was also a member of the building committee, and rendered much assistance in regard to the construction of the laboratories. He was a sanitarian with very pronounced views, and the operating theatres in both hospitals were remodelled on his advice. A memorial service was held in Eltham Parish Church on August 9th, and the funeral took place on the following day in the old churchyard.

WE regret to record the death of Dr. JAMES MILLER, of St. James Terrace, Glasgow. An Edinburgh graduate, Dr. Miller spent some years in studying sanatorium work in Nordrach-on-Dee and other places, and thereafter for a short time practised in Manchester. Some five years ago he settled in Glasgow as successor to Dr. Anderson Robertson, who relinquished his practice to enter the church. Soon afterwards Dr. Miller was attacked with enteric fever, but on his health being re-established he rapidly acquired an extensive practice. He devoted himself very largely to vaccine treatment, and was the leading exponent of Wright's methods in Glasgow. His services were in