

beg leave to offer Your Majesty, the beloved patron of our Society, our respectful congratulations upon the completion of the twenty-fifth year of Your Majesty's reign.

The Royal Society of London since its foundation by King Charles the Second, has continued, under the illustrious patronage of each of Your Majesty's predecessors, to devote itself to the Promotion of Natural Knowledge, for which it was founded. During Your Majesty's reign, the advance of Science has exercised an ever increasing influence on human thought, and, in its practical applications, on the material conditions of man's life and activities. The Royal Society is proud to think that, with Your Majesty's continued patronage and approval, it has remained the centre for the recognition and promotion of the work of Your Majesty's subjects for the Advancement of Science throughout Your great Empire.

The Royal Society accordingly claims the proud privilege of being permitted to offer this loyal tribute of esteem to Your Majesty, on behalf of men of Science, not only in the Mother Country, but also throughout the Empire. It is offered in the earnest hope that Your Majesty, with Her Most Gracious Majesty the Queen, may long continue to reign over Your devoted and loyal subjects.

On behalf of the Council and Fellows of the Royal Society.

TO THE KING'S MOST EXCELLENT MAJESTY

May it please Your Majesty,

We of the Royal Society of Edinburgh bring to Your Majesty and to Her Most Gracious Majesty the Queen our humble and hearty congratulations on the happy issue of the five-and-twenty years during which Your Majesty has ruled over a loyal and devoted people.

These years of Your Majesty's reign mark a great epoch in History. War has shaken the world and changed the lives and thoughts and circumstances of men. But the devotion of the people to Your Majesty's Throne and Person has deepened and strengthened through all the changes and tumults of the age.

In this Royal Society the Natural and Physical Sciences are our daily occupation and task. Never have these Sciences flourished more than under Your Majesty's protection nor have they ever been more diligently applied to the service and advantage of mankind. Now for the first time in all the world men go their daily journeys above the clouds: all nations and languages send speech and music through the air: and Your Majesty's voice is grown familiar in Your people's ears even to the ends of the earth throughout Your world-wide Empire and Dominions.

And that Your Majesty may long be spared in health and wealth to live and reign this Society will Ever Pray.

Obituary

SIR JOHN ROSE BRADFORD, BART., K.C.M.G., C.B.,
C.B.E., F.R.S.

THE death of Sir John Rose Bradford, on April 7, after some months of increasing disability, will be deeply regretted in many scientific circles. Born in London on May 7, 1863, as the son of Abraham Rose Bradford, a naval surgeon, he was educated at University College School, University College, and University College Hospital, London, and had a brilliant career as a student, published physiological papers before he became qualified medically, and was specially interested in biology. His papers, however, were mainly physiological, and covered a wide field: on the electrical phenomena associated with secretion; on the innervation of the blood vessels; and particularly on the renal function, which he later extended to the subject of uræmia and disease. He probably hesitated about his life's work, whether strictly scientific work or medicine, for he was elected George Henry Lewes student in physiology in 1888, his predecessors being C. S. Roy (1879), L. C. Wooldridge (1882), and C. S. Sherrington (1884), and his immediate successors G. N. Stewart and E. H. Hankin jointly (1889). The decision was made when he accepted accelerated appointment as assistant physician to University College Hospital. His physiological researches gained him the fellowship in 1894 of the Royal Society, of which he was later secretary (1908-15). He thus, like his teacher,

Sydney Ringer, combined the attitude of an all-round biologist with that of a practising physician.

At the Royal College of Physicians of London, Sir John was elected a fellow in 1897, gave the Goulstonian lectures on the pathology of the kidneys (1904), the Croonian lectures on Bright's disease and its varieties (1920), the Lumleian lectures on the clinical experience of a physician during the campaign in France and Flanders in 1914-19, and the Harveian oration (1926) on the debt of medicine to the experimental method of Harvey, which may be read as supplementary, and as showing the other side of the shield, to the debt of science to medicine, the subject of Sir Archibald Garrod's Harveian oration of 1924.

Though a general physician, as shown in his Lumleian lectures, Sir John was best known for his work on kidney disease; he wrote standard articles in the second edition (1908) of the "System of Medicine" (Allbutt and Rolleston) on the general pathology of the renal functions and on nephritis, and a special form of nephritis became known as "Rose Bradford's kidneys". In the same "System" he also gave the accounts of diabetes insipidus and gout, the latter being a revision of the original article by Sir William Roberts, whose niece he married in 1899. He brought out a small work "Clinical Lectures on Nephritis" (1898), but, though he had plenty of material, he never, from the number of other activities, had time or perhaps the inclination

to write the treatise he could have done so well.

Among Sir John's many official appointments were that of professor-superintendent of the Brown Institution, Wandsworth, in his comparatively early life; member of the Mosley Commission (1904) to study educational methods in the United States of North America, for which he reported on the relations of hospitals to medical schools, clinical laboratories, and the teaching of medical pathology; senior medical adviser to the Colonial Office, the Medical Department of the Admiralty, and the Grocers' Company; chairman of University College Committee; senator of the University of London; president of the London and Counties Medical Protection Society, and a member or chairman of numerous committees. Most conscientious, un-

obtrusively modest and endowed with a marvellous memory, he was an ideal chairman, and nowhere was this better shown than when president of the Royal College of Physicians of London (1926-31). It may well be said of him as a man that he earned "honour, love, obedience, troops of friends".

HUMPHRY ROLLESTON.

WE regret to announce the following deaths:

Prof. Auguste Marie, professor of microbiology in the Institut Pasteur, Paris, known for his work on rabies, cancer and tetanus, on March 30, aged seventy years.

Mr. J. Milton Offord, president of the Quekett Microscopical Club, on May 4, aged seventy-four years.

News and Views

The Royal Jubilee Broadcast

THE birth and development of modern radio broadcasting are not least among the items of progress in our civilisation, which have taken place during the twenty-five year period the termination of which was commemorated last Monday by the Royal Jubilee celebrations. An excellent example of the present possibilities of broadcasting technique was provided on this occasion by the special programme from the B.B.C. stations, which enabled listeners in all parts of the Empire to visualise the scene in London, including the crowds, decorations and the Royal procession, and to participate in the thanksgiving service held in St. Paul's Cathedral. The issue of the *Radio Times* of May 3 contains an illustrated description by the Outside Broadcast Director of the B.B.C. of the arrangements which were made to carry out this programme. Special microphones, with local control points, were erected at Temple Bar, Ludgate Circus and on the front of St. Paul's Cathedral, from which was given a commentary on the Royal procession as it approached St. Paul's; while in the Cathedral itself, seventeen microphone circuits were provided for the adequate handling of the thanksgiving service. The suitable mixing of the various portions of the programme received along the total of twenty-seven circuits was carried out by one man, who was situated in the temporary control room erected over one of the vestries in the north-east corner of the Cathedral. This control room was connected to Broadcasting House by six outgoing circuits, two of which were utilised by a foreign commentator.

It says much for the foresight with which the arrangements were made and for the thoroughness with which each person concerned carried out his work, that the programme was accomplished without a fault of any description. The whole network of interconnecting cables was entirely underground and was provided by Post Office engineers; at no point inside or outside St. Paul's were there any visible

signs of broadcasting. As a broadcast of sound effects, interspersed with brief commentaries, the programme was satisfactory. Much, however, was inevitably left to the imagination in order to visualise the glamour and splendour of the scene which was being portrayed. Is it too much to hope that by the next occasion when a similar ceremony is to be broadcast, the sound picture will be supplemented by a vision programme, perhaps even in full natural colour?

Association of British Chemical Manufacturers

JUBILEES are occasions of rejoicing and congratulation, but they provide us also with opportunities for taking stock both of our national resources and of the use we are making of them; so that when, after due examination and consideration, the celebrations are followed by renewed resolutions and by more fully informed and co-operative effort, they can fairly claim to have made a contribution of more than passing value to our national progress. Many organisations, national and sectional; political, ecclesiastical and industrial; philanthropic and learned societies, and indeed societies representing every phase of corporate life, will in 1935 be concerned to view with a critical eye their progress throughout the years of His Majesty's reign. In so far as they can show that their attempts to make the world a better place to live in have been honest, sensible and attended by a reasonable measure of success, they will receive a meed of applause; in so far as they discover how better to carry out the purposes for which they were brought into existence, they will equally merit the approval of sympathisers. The year 1935 is one in which chemical organisations in Great Britain will take decisions of exceptional significance. They have long been considering how they can more adequately serve their science and more effectively promote its application for the benefit and prosperity of the community. Proposals which are now under consideration have been put forward with that end in view. One of the