

Prof. Regener described experiments on the variation with time of the hard component. Periodic variations both with respect to solar and sidereal time are found. The former has an amplitude of 0.25 per cent, with maxima at 10^h and 22^h. The variation with sidereal time has a smaller amplitude with a maximum at about 18^h,

and may be attributed to the effect of galactic motion suggested in this connexion by Compton.

While there is obviously much to be cleared up in the field of cosmic rays, the discussion left the impression that the subject is not as much in a state of confusion as it has often been in the past.

E. J. WILLIAMS.

Obituary Notices

Prof. W. Stroud

PROF. WILLIAM STROUD, chairman of the firm of Barr and Stroud, Ltd., died at the age of seventy-nine years on May 27, at Torquay.

At an unusually early age young William Stroud of Bristol entered Balliol College, Oxford. "I was confronted," he wrote, "with the problem whether I should study Latin Hexameters and Greek Iambics or devote myself to what was contemptuously called 'Stinks'." It was a lecture by Prof. Tyndall that determined his choice, and his association with the late Prof. Barr that diverted his physics to industry.

When in July, 1935, the University of Leeds bestowed upon Lord Rutherford and himself the honorary degree of D.Sc., he wrote: "There was Lord Rutherford, the most worthy representative of Pure and Sacred Physics, and here was I, the least worthy representative of Profane Physics," between which and engineering he found it difficult to discriminate, for he was both a physicist and an engineer. How to attain some superlative accuracy from available materials and machines was a question never absent from his mind. For judicious approximation—that characteristic of the skilled engineer—he had a natural gift, but he never acquired the facility in the use of the slide rule of his colleague who, he alleged, in order to multiply two by two, would set these figures on the appropriate scales and, after close scrutiny, declare the product to be 3.96 or 7.

From Balliol, Stroud proceeded to the Universities of Heidelberg and Würzburg, where, incidentally, he acquired his habit of continuous smoking. Arthur Smithells in the Heidelberger Schloss dared him to smoke a five-pfennig cigar. The results of this unaccustomed experiment were unpleasant. "I determined," he said, "to conquer such squeamishness and eventually achieved such a triumph that up to date I must have smoked over 110,000 cigars—more than half a ton of tobacco—with much satisfaction, and three cigarettes smoked simultaneously in parallel with no satisfaction whatever."

Soon after Stroud's return to England, the Yorkshire College of Leeds in June 1885 lost, by resignation, two of its professors, Sir Edward Thorpe and Sir Arthur Rücker. His friend, Prof. Smithells, was appointed to the vacant chair of chemistry and he, at the early age of twenty-five years, succeeded Sir Arthur Rücker as Cavendish professor of physics.

This chair he occupied with great distinction until 1909, when he retired in order to devote his whole attention to the rapidly expanding business he and his partner had established in Glasgow.

During his first session, Stroud thought it necessary to discourse with what he termed "the best Professional dignity he could summon to his assistance". From the results of the terminal examinations he was, however, dismayed to find "that most of the students had learned next to nothing from my lectures". "I resolved," he said, "that the Pontifical Pomposity to which I had been accustomed would be a thing of the past." How well he succeeded in teaching physics effectively with inspiring geniality will always be remembered by his many students, to whom he was affectionately known as 'Billy'.

It was at the Yorkshire College that he met the colleague of his lifetime, the late Archibald Barr, the occupant of the chair of engineering at Leeds and later at Glasgow. Their collaboration in the invention of the rangefinder and many other valuable appliances has already been recorded in the obituary of Prof. Barr (NATURE, 128, 294; 1931) and is well known. The power of assessing conditions and of rapid readjustment was an outstanding characteristic of Prof. Stroud in all his activities, whether physical, practical or financial, for in all these spheres he was eminently successful. For any problem his penetrating mind would produce not merely one but several solutions and each with its variations. His letters from Leeds abound with coloured sketches of diagrams and mechanisms and such expressions as "Undoubtedly this is the way to do it.—A still better way is this—". "Try turning the mechanism inside out." Gifted with eloquence, he was sparing of unnecessary words. Invariably his letters ended with "Y.v.t., W.S."

By his death, science and industry have lost a very great man.

JAMES WEIR FRENCH.

Dr. C. C. Edgar

WE regret to record the sudden death of Dr. Campbell Cowan Edgar, distinguished as an authority in Egyptian archaeology, which took place on May 10 at Berkhamsted.

Dr. Edgar, who was of Scottish extraction, entered Oriel College as a scholar in 1891, and later was attached to the Egyptian Department of Antiquities,

where he became acting head of the Musée des Antiquités in Cairo. He contributed a large number of articles to the "Catalogue Général des Antiquités Egyptiennes du Musée du Caire", dealing with the development of various aspects of Greek art and culture, more especially under the influence of its Egyptian environment. By these studies he came to be recognized as one of the first authorities on the culture of Græco-Roman Egypt. His knowledge and reputation marked him out as well fitted, notwithstanding his lack of specialized training, to undertake the editing of the Zenon archive, an extensive collection of papyri found at Darb-el-Gerza (Philadelphia) in the Fayum, which had been acquired from time to time by the Cairo Museum. A selection published in the "Annales du Service" was speedily and widely accepted as authoritative, and fully justified his selection for the task. This verdict was confirmed by the four volumes afterwards published by him in the "Catalogue Général". Detailed knowledge of the second Ptolemy's scheme of land development in the Fayum is largely due to Edgar's commentary.

On his retirement, Edgar continued his papyrological work and was associated with the late Dr. A. S. Hunt in his work on the Tebtunis papyri. He had also undertaken the editing of the portions of the Zenon papyri in the possession of the University of Michigan and the Rylands Library, Manchester. He acted in an advisory capacity for Græco-Roman Egypt in the editing of the *Journal of*

Egyptian Archæology and was a member of the committee of the Egypt Exploration Society. His services to papyrology and Egyptian archæology received the recognition of the honorary degree of Litt.D. from the University of Dublin.

WE regret to announce the following deaths :

Prof. W. A. Bone, F.R.S., formerly professor of chemical technology in the Imperial College of Science and Technology, on June 11, aged sixty-seven years.

Mr. B. D. Burt, survey botanist in the Department of Tsetse Research, Tanganyika Territory, on June 8.

Mr. M. J. R. Dunstan, O.B.E., principal of the South-Eastern Agricultural College, Wye, in 1902-22, and of the Royal Agricultural College, Cirencester, in 1922-27, on May 28, aged seventy-four years.

Dr. W. W. Campbell, For. Mem. R.S., president of the University of California in 1923-30, director of the Lick Observatory in 1901-30, on June 14, aged seventy-six years.

Mr. A. W. Shorter, assistant keeper of the Department of Egyptian and Assyrian Antiquities in the British Museum, on May 31, aged thirty-two years.

Dr. Sinclair Smith, physicist at the Mount Wilson Observatory, on May 18, aged thirty-nine years.

Mr. C. F. M. Swynerton, C.M.G., director of tsetse research in Tanganyika Territory, on June 8, aged sixty years.

News and Views

King's Birthday Honours List

THE list of Birthday Honours conferred by H.M. the King includes the names of the following men of science and others associated with scientific work : *Order of Merit* : Sir Arthur Eddington. *Baron* : Sir Josiah Stamp. *Baronets* : Major Sir William Prescott, chairman of the Metropolitan Water Board ; Lieutenant-Colonel Sir Archibald Weigall, chairman of the Royal Empire Society. *G.C.M.G.* : Lord Harlech, lately Secretary of State for the Colonies. *K.C.B.* : Sir Cyril Hurcomb, chairman of the Electricity Commission. *K.B.E.* : Prof. T. H. Easterfield, formerly director of the Cawthron Institute of Scientific Research, New Zealand ; Sir Samuel Hordern, president of the Royal Agricultural Society, New South Wales ; Mr. A. W. Street, First Deputy Under-Secretary of State, Air Ministry, lately Second Secretary, Ministry of Agriculture and Fisheries. *Knights Bachelor* : Mr. W. G. Ball, surgeon and dean of the Medical College, St. Bartholomew's Hospital ; Mr. W. A. Cosgrave, lately chief commissioner of the Andaman and Nicobar Islands ; Dr. Cyril Norwood, president of St. John's College, Oxford ; Mr. W. Roberts, manager of the British Cotton Growing Association Farm, Khanewal,

Multan District, Punjab ; Dr. R. B. Wade, president of the Medical Board, New South Wales.

C.B. : Dr. J. J. Fox, Government chemist. *C.M.G.* : Mr. G. A. Jones, commissioner of agriculture, Imperial College of Tropical Agriculture, Trinidad ; Prof. A. E. V. Richardson, deputy chief executive officer, Council for Scientific and Industrial Research, Commonwealth of Australia ; Mr. J. W. Spiller, chief engineer, Designs Branch, Crown Agents for the Colonies. *C.I.E.* Lieutenant-Colonel E. H. V. Hodge, professor of medicine, Medical College, Calcutta, and first physician to the College Hospitals, Bengal ; Mr. H. S. E. Stevens, secretary to the Government of Bengal in the Agriculture and Industries Department, Bengal ; Mr. T. A. Whitehead, chief conservator of forests, Madras. *C.B.E.* : Mr. H. Bishop, assistant chief engineer, British Broadcasting Corporation ; Mr. W. W. Henderson, director of veterinary services, Nigeria ; Dr. Elizabeth Hurdon, lately director of medical services and research, Marie Curie Hospital, Hampstead ; Prof. B. Melville Jones, Francis Mond professor of aeronautical engineering, University of Cambridge ; Mr. E. J.