

News and Views

Prof. F. W. Thomas, C.I.E.

PROF. F. W. THOMAS of Oxford has been elected president of the ninth All-India Oriental Conference, which will be held at Trivandrum in December next. He has also been elected a corresponding fellow of the Philosophical and Historical Section of the Prussian Academy of Sciences. Prof. Thomas, who has been Boden professor of Sanskrit in the University of Oxford since 1927, and is a fellow of Balliol College, was librarian of the India Office from 1903 until 1927, and was awarded the C.I.E. in the honours list of 1928 on his retirement from that office. He is chairman of the Section of Oriental Studies of the British Academy, and represents that body as a governor of the School of Oriental Studies of the University of London. He is also reader in Tibetan and lecturer in comparative philology in the University of London. Prof. Thomas has long been known as one of the foremost scholars in the classical languages of the East, in which he has acted as examiner not only in all the universities in Great Britain which offer a course in those languages, but also in the principal universities of India. His outstanding knowledge of Buddhist art and literature received the signal recognition of the award of a medal in 1934 at the Tokyo celebration of the two thousandth anniversary of the birth of Buddha. He is the author of a large number of publications on the philology and literature of Sanskrit, Pali and other oriental languages, as well as on the art and literature of Buddhism.

Prof. Walter G. Cady

THE Council of the Physical Society has awarded the fourteenth Duddell Medal to Walter G. Cady, professor of physics at the Wesleyan University, Middletown, Connecticut, U.S.A., for his work on piezo-electric resonators and oscillators as standards of frequency. Prof. Cady's pioneer work on the subject was published in 1922 (*Proc. Inst. Radio Eng.*, 10, 83) and the value of the device may be judged from the fact that it stimulated research work on the subject in all parts of the world, more than a thousand papers having been published on the properties of piezo-electric crystals since the appearance of Cady's first paper. Of course, these are not all due to Cady's work, for Langevin had previously used piezo-electric crystals as vibrators for underwater signalling, but Cady's particular contribution—the use of the quartz resonator as a standard of time or frequency—has quite obviously inspired most of the work. The use of these resonators as standard vibrators has made it possible to measure frequency and intervals of time with an accuracy not previously attained. It is scarcely necessary to emphasize the importance to physics of increased accuracy in such fundamental measurements. Among the applications which have already been made the following may be

mentioned: (1) The quartz-clock now used as standard in some observatories. It is in some respects superior to the pendulum clocks, and in any event is a most valuable supplement to them. (2) The measurement and control of the frequency of alternating currents in connexion with measurements of dielectric constant, 'absolute' electrical measurements, etc. (3) The measurement of the velocity of ultrasonic sound waves. Duddell, who was responsible for so much elegant instrumental work, would have been the first to recognize the beauty of Prof. Cady's device, and it will be a source of great satisfaction to all scientific workers to know that the value of Prof. Cady's work has been recognized in such an appropriate manner.

Centenary of the University of Durham

THE University of Durham, though now well over a hundred years old, has just celebrated its centenary. It was originally intended to hold the celebrations five years ago, since the Act of Parliament which provided for the foundation was passed in 1832. Owing to the economic depression, however, it was felt inappropriate to enter into rejoicings under the cloud of industrial stagnation which, in 1932, was locally responsible for widespread distress. The present year has a historical claim to recognition, apart from the atmosphere of returning prosperity, for it was in 1837 that the University was granted its charter by William IV. Moreover, as a result of the recent Royal Commission, the University is about to enter upon a new phase of its history. The main celebrations were held at Durham on July 1, and were attended by delegates from all the other Universities of the British Isles and from several in Canada, Australia, New Zealand, South Africa, India and the United States. Learned societies were represented by, among others, Sir William Bragg, Lord Dawson of Penn, Dr. H. Spencer Jones, Prof. F. G. Donnan and Prof. O. T. Jones. After a morning visit to the Colleges, including the Castle, a centenary service was held in the Cathedral, where the preacher was the Bishop of Durham. The keynote of Dr. Henson's discourse was that universities are the "watchdogs of human liberty". "The new universities," he said, "were born and cradled in an atmosphere of freedom. They surely must stand in the forefront of the champions of academic liberty against the aggressions of the totalitarian State or the subtler assaults of racial fanaticism". After the service, the delegates were entertained to luncheon, some in the Great Hall of the Castle (by the University), and others at the Town Hall (by Lord Londonderry, Chancellor of the University and Mayor of Durham).

IN the afternoon, a Centenary Convocation was staged in the picturesque surroundings of the Castle quadrangle. Each delegate was introduced to the

Chancellor, to whom addresses of congratulation were presented. The Chancellor then conferred the honorary degree of D.C.L. upon nine distinguished men: Dr. C. A. Allington, Dean of Durham; Prof. P. Bedson, emeritus professor of chemistry; Lord Cadman, an old graduate of the University; the Hon. J. A. Hanan, chancellor of the University of New Zealand; Sir John Jarvis, the promoter of many schemes to help the distressed area of Jarrow; the Rev. S. R. P. Mouldsdales, until recently principal of St. Chad's College; Mr. Tracy Philipps, explorer and war correspondent; Sir Cuthbert Wallace, president of the Royal College of Surgeons; and Mr. G. H. A. Wilson, master of Clare College and vice-chancellor of the University of Cambridge. Convocation was followed by a garden party in the adjoining Fellows' Garden. Later, the delegates were entertained to a banquet in the Great Hall, after which they were received by the Council of the Durham Colleges.

It is interesting to record that so early as 1650 a petition to Parliament that a college be established at Durham was approved by Cromwell. When university powers were applied for, however, the proposal was thought to be prejudicial to the older universities and the Great Seal was withheld. No more was heard of a northern university until a draft scheme was drawn up in 1831. The necessary Act was passed in 1832, and the first students came into residence during the following year. Among the first members of staff was J. F. W. Johnstone, lecturer in chemistry and mineralogy. About the same time (1834) the Newcastle-upon-Tyne College of Medicine originated, though it did not become connected with the University of Durham until 1852. Durham College of Physical Science was founded in Newcastle in 1871. It had then four professors—mathematics, physics, chemistry and geology—but by the time its name was changed to Armstrong College, in 1904, a very wide range of university subjects had long been incorporated. Now, both the College of Medicine and Armstrong College are about to be united, under the revised constitution of the University, as a new corporate body to be known henceforth as King's College. At Durham itself, science seems to have lapsed after the death of Johnstone in 1855. Since 1924, however, when the first block of the present Science Laboratories was opened, several very flourishing schools have developed. Under the new regime, the University of Durham (consisting of the Durham Colleges, together with King's College, Newcastle-upon-Tyne) enters the most promising period of its history, with every prospect of expanding achievement and prosperity.

The World's Air Altitude Record

THE world's air altitude record was regained for Great Britain by the Royal Air Force on June 30, by a flight to an altitude of 53,937 feet (more than ten miles). The previous record of 51,362 feet was held by Lieut.-Colonel Mario Pezzi for Italy, who beat the then British record of 49,944 feet last autumn. The flight was made from the aerodrome

of the Royal Aircraft Establishment, Farnborough, by Flight-Lieut. M. J. Adam, using the Bristol 138 experimental high altitude aircraft. This was the same machine as used by Flight-Lieut. Swain, R.A.F., for the previous record, but was fitted with a special Bristol Pegasus engine. It had various detail improvements as suggested by experience. The pilot wore the actual high-pressure suit that was prepared as a reserve for the previous record flight, with small improvements. These included precautions against 'frosting up' of the Celestroid windows of the headpiece, and an emergency breathing pipe to lead air direct from the outside when necessary, instead of having to slash open the front of the headpiece as did Flight-Lieut. Swain, upon landing, after his flight. The transparent material forming the cabin roof was observed to crack upon reaching an altitude of about 48,000 feet, but this was not serious enough to interfere with the continuation of the flight.

THE ascent was made in 1 hr. 35 min., and the total time of the flight was 2 hr. 15 min. The minimum pressure and temperature were 77.8 mm. of mercury and -48.9°C . respectively, both occurring at the maximum height. The pilot experienced a good deal of navigational trouble due to cloud-layers at intervals, at one time being forced to fly east, facing the sun, which at 6 a.m. was low enough to blind him. A steady north-westerly wind, estimated by the pilot to be of about 100 miles an hour velocity, was encountered in the upper regions. It is understood that the aircraft will continue to be employed upon researches into conditions of flight in the upper atmosphere.

Atlantic Air Mail Service

THE first test flight of the Atlantic air mail service began on July 5 when the Imperial Airways flying-boat *Caledonia* left Foynes, Ireland, for Botwood, Newfoundland, and two and a half hours later the Pan-American Airways *Clipper III* took off from Botwood on the easterly crossing. The two boats alighted at their destinations within a quarter of an hour of each other on July 6. The *Caledonia*, under Captain A. S. Wilcockson, flew mostly at a height of 1,500 ft. to avoid the worst of the head-wind; she followed a rhumb line course at an average speed of about 132 miles an hour and was in the air for 15 hr. 28 min. The *Clipper III*, under Captain H. Gray, flew most of the way at 10,000 ft. to make the most of the following westerly wind; she kept roughly to a great circle course and her average speed was 156 miles per hour and flying time 12 hr. 37 min. Both commanders described the crossing as comparatively uneventful, and paid high tribute to the work of the wireless stations on both sides of the Atlantic in assisting their navigation.

Centenary of the General Register Office

AN exhibition which opened on July 1 at the General Register Office, Somerset House, Strand, London, W.C.2, for a duration to be announced later,