News and Views

Sir Frank Dyson, K.B.E., F.R.S.

A LARGE gathering, representative of the Admiralty, the Board of Visitors to the Royal Observatory, the staff of the Observatory, the Royal Astronomical Society and the British Astronomical Association, attended a complimentary luncheon to Sir Frank and Lady Dyson on March 10. Affection and respect for the human and lovable chief of astronomy, and for his attainments and achievements, were the note of the letters read from those unable to be present and of the speeches of Prof. F. J. M. Stratton and Dr. W. A. Parr, the presidents respectively of the Royal Astronomical Society and the British Astronomical Association. Tributes were paid to the unselfish yet competent manner in which Sir Frank Dyson has sunk himself in the work of the Royal Observatory during his tenure of the office of Astronomer Royal and to the friendly and helpful way in which he has co-operated with his astronomical colleagues, professional and amateur alike. The best of wishes for the future were expressed to both Sir Frank and Lady Dyson.

Prof. J. Proudman, F.R.S.

PROF. J. PROUDMAN, the present holder of the chair of applied mathematics in the University of Liverpool, has been elected to the chair of oceanography in the University which has become vacant by the death of Prof. James Johnstone. Prof. Proudman joined the staff of the University in 1913 as lecturer in mathematics, and has held the chair of applied mathematics since 1919. In 1919 he was appointed director of the newly founded Tidal Institute and director of Liverpool Observatory. He is a member of the British National Committee for Geodesy and Geophysics and of its sub-committee for Physical Oceanography. He is also a member of the British Section of the International Committee on the Oceanography of the Pacific. He has served on many committees concerned with tidal matters and inundations. His own researches have mainly been concerned with the dynamical aspects of ocean tides and their currents and with the action of wind and of variable atmospheric pressure upon the sea. For his work on these subjects Prof. Proudman was awarded a Smith's Prize of the University of Cambridge in 1915 and the Adams Prize in 1923.

The Californian Earthquake

THE earthquake that occurred in southern California at 5.54 p.m. on March 10 (1.54 a.m., March 11, G.M.T.), though it was the cause of considerable loss of life and property, can scarcely be regarded as one of the great earthquakes of that State. The number of persons known to have lost their lives is 151, and it is estimated that 7,500 houses were destroyed or damaged, and that the value of the property lost was more than ten million pounds. Most of the places in which houses were injured lie within an area about sixty miles long, running in a south-easterly direction from near Los Angeles to beyond Santa Ana. The place that suffered most is Long Beach, a town on the coast about twenty miles south of Los Angeles. Here, 65 persons were killed and about a hundred wounded. The epicentre thus lies near the coast, possibly under the ocean, so that the earthquake cannot be connected with the great San Andreas rift, which, in this part of California, runs about fifty miles inland. Since 1769, the Los Angeles district has frequently been visited by severe, though not disastrous, earthquakes. About ninety miles to the west lies Santa Barbara, part of which was seriously damaged by the earthquake of June 29, 1925.

Soviet Expedition to the Pacific Ocean

THE expedition to the Pacific Ocean organised under the joint auspices of the State Hydrological Institute and the Ichthyological Institute of the U.S.S.R. has recently returned from the Far East. The expedition made a detailed investigation of the Sea of Japan, the Sea of Okhotsk and the Bering Sea, in which thirty-one members of the Hydrological Institute took part. In the Sea of Japan a thorough investigation was made of the region stretching from the border of Korea to the Gulf of Olta. For the first time in the history of oceanographic research, detailed work was carried out in the parts adjoining the Gulf of Peter the Great at a depth of 8,500 m., and at that depth various organic forms of life hitherto unknown to science were discovered. It has been ascertained that the sharp descent of the coast-line —at an angle of 24°—forms a huge ravine overgrown with tree-shaped corals. One such coral was extracted by the expedition. Samples of the sea-bed at a depth of 8,400 m. have been obtained, and also much hydrological material which makes it possible to determine, according to the seasons, the annual hydrological system of the region of the Gulf of Peter the Great.

CERTAIN inaccuracies of existing maps have been corrected. In some places the depth was found to be 1,000–1,500 m. instead of 100 m.; elsewhere, on the contrary, submarine ridges have been discovered in place of depressions. Much material on hydrology has been collected which point to the penetration of the waters of the Pacific Ocean to the eastern part of the Sea of Okhotsk. In the Bering Sea, hydrological and biological investigations were made, in some places at a depth of 3,800 m. For the first time, the interchange of the water masses of the Bering and Chukhodsk Seas during the summer season was investigated. Numerous measurements were made by the expedition which will enable a more exact map to be made of the western part of the Bering Sea.

Metallurgy Building at University College, Cardiff

IN NATURE of August 5, 1915, an account was given of the new building which had been erected for metallurgy at University College, Cardiff. An

important extension to this building, which completes the scheme, was formally opened on March 16 by Mr. W. D. Woolley, chairman of the Monmouthshire and South Wales Coalowners' Association. The new accommodation provides: ground floor, mechanical laboratory, physical laboratory and lecture room; first floor, three research laboratories, private room, museum and library; second floor, chemical laboratory, balance room, combustion and gas analysis, laboratory and private room. The College has now a well-planned and well-equipped building for teaching and research work, the erection of which is due to the generosity of the Monmouthshire and South Wales Coalowners' Association.

Projected Flight over Everest

IN our issue of February 4 (p. 160), reference was made to the two aeroplanes which have been modified to undertake a flight over Mount Everest. According to the Karachi correspondent of the *Times*, the machines arrived at Karachi on March 9. The main base for the expedition will be Purnea. The photographic results of the flight, should it be successful, are likely to be of considerable interest, for nothing is known at present of the south face of Everest. Indeed, if the photographs are available in time, they may be of assistance to the expedition now in India preparing to climb the mountain (NATURE, Jan. 7, p. 10), especially if the snow and ice conditions have changed considerably since the 1924 expedition. Useful data may also be obtained of atmospheric conditions; while we know a good deal about the atmosphere at 30,000 ft. above mean sea level, it is likely that conditions at this absolute height but with high mountains below will be different. The aeroplanes, however, are not suited for making useful cosmic ray observations. The flight will be a great adventure, for should the machines have to come down through engine failure, the chances of finding a suitable landing place in that great area of mountainous country are small.

Discovery of Sexuality in Plants

THE discovery of sex in plants is usually credited to Camerarius (1694), and Koelreuter (1761) is generally believed to have made the first systematic study of plant hybrids. Statements of Sachs in his "History of Botany" are mainly responsible for these attributions. Dr. Conway Zirkle is able to show, however (*J. Hered.*, vol. 23, No. 11), that other names really have priority in connexion with these important developments in the history of science. N. Grew, in an address to the Royal Society in 1676, expressed the view that the stamens are the male organs of a flower, the pollen acting as vegetable sperm. Thomas Fairchild, whom Sachs referred to as "a gardener in London", was in fact the leading experimenter of his generation, and his famous cross between sweet william and the carnation is shown to have been made at least as early as 1717. Philip Miller was the first to describe insect pollination by observations on tulips. This was not, however, in 1751, as stated by Sachs, but so early as 1721. He also observed natural crossing in cabbages as well as sexual reproduction in cucumbers and melons. Dr. Zirkle also gives an interesting account of equally early American observations on pollination and crossing, chiefly in maize, by Cotton Mather (1716), Judge Dudley (1724) and Governor Logan (1735). A letter of John Bartram in 1739 shows that he too had made species crosses in *Lychnis* at that date.

Courtship of Birds

THE courtship displays of birds, wherein they manifest the amorous emotions which possess them, are now daily becoming more and more assertive. Much has yet to be learned concerning the 'behaviour' of birds thus possessed at this time; and the relation of this behaviour to various and often conspicuously coloured plumage, wattles, bare skin, or inflatable air-sacs. The pheasants afford striking illustrations of apparently conscious effort to display such ornaments to the best advantage before apparently disinterested females. The belief that these displays serve as aphrodisiacs must be regarded as well-founded. This fascinating aspect of bird life can now be studied at the Zoological Gardens, Regent's Park; a number of tragopans, or horned-pheasants, as well as Cheer, Impeyan, and Kalij-pheasants, having just been added to the collections. Blyth's tragopan from Assam, and the crimson tragopan from the south-eastern Himalayas, each bears an erectile appendage over the eye, of a vivid blue colour; and an inflatable wattle at the throat. In Blyth's tragopan this is yellow tinged with blue, while in the crimson tragopan it is orange, barred with blue, and when filled with air presents a strange effect. If the courting antics of the tragopans be compared with those of the golden and Amherst pheasants, wherein the chief ornaments take the form of a great frill of vividly coloured feathers encircling the neck, the contention that both types display deliberate and purposeful movements designed to make the most effective possible use of these ornaments will seem incontrovertible. Though the Darwinian view that these resplendent areas were brought to perfection by the selective preferences of the female, before whom they are displayed, has lost its hold, they are nevertheless instances of 'sexual selection'; since only the most amorous males, the most skilled performers, can succeed in arousing the desired response in their phlegmatic prospective mates.

Vanished Races in South Africa

FROM time to time news is received of the discovery in South Africa of a new and previously unknown culture, presumed to be the work of a vanished race. More often than not the finds are associated with stone-work or the evidence of metal-working. The latest discovery to be reported (*Times*, March 13) comes from the northern Transvaal, where Mr. D. S. van der Merwe, assistant registrar of mining titles on the Rand, has discovered sacrificial graves of an entirely new type, a sacrificial altar, approached by ceremonial causeways and by staircases, an