

proved that ethylene 'puts plants to sleep'. He has shown how certain seeds that remain dormant for many years may be induced to grow if given proper treatments. Low temperatures, chemicals, light and other environmental agencies have been used to break these long rest periods. His work on the physiology of dormancy in seeds has contributed to fundamental knowledge of life processes. The Gold Medal of the American Institute may be awarded either to organizations or to individuals.

WALDEMAR KAEMPFERT, science editor of the *New York Times*, and Dr. Raymond L. Ditmars, curator of reptiles and mammals of the New York Zoological Park, have been awarded fellowships of the American Institute for their contributions to science. Mr. Waldemar Kaempffert was awarded the fellowship "for his scholarly interpretation of scientific advances, for his editorial wisdom, for his adroit cultivation of the public mind toward a rational outlook and for his leadership in enforcing their social responsibilities upon scientists". Mr. Kaempffert, who is president of the National Association of Science Writers, has for many years been a leader in the promotion and maintenance of the high standards of science reporting in the United States. He took up his duties as science editor of the *New York Times* in 1927, leaving in 1928 to become the first director of the Museum of Science and Industry in Chicago. He is responsible for the real establishment of that great institution for the interpretation of science to the public. Mr. Kaempffert returned to the *New York Times* in 1931, where his weekly columns on the latest developments of science have become a source of invaluable information to thousands of readers not only on the facts of science but also on its philosophy.

DR. RAYMOND L. DITMARS has received the American Institute fellowship "for his thirty-seven years of distinguished service in the care, understanding and interpretation of the reptile world and for his inspiring of youthful spirits with the zeal of the naturalist". Dr. Ditmars is the author of many fascinating volumes on his work with snakes, including "The Making of a Scientist", "The Thrills of a Naturalist's Quest", "Snakes of the World" and "The Forest of Adventure", which latter presents his subject especially for boys and girls. At his laboratory in the New York Zoological Park, Dr. Ditmars is engaged in biochemical research on the subject of snake poisons as a useful substance for the treatment of certain human ailments, including hæmophilia, the reduction of pain, and epilepsy. In announcing these fellowships, Dr. Gerald Wendt, director of the American Institute, explained that they were awarded each year by the Institute to "persons who have done outstanding work in the interpretation of scientific, engineering or industrial work, which promotes with effectiveness the knowledge and general understanding of these arts and sciences. The recognition of these interpreters of science is an important element in the

Institute's programme, which has as its primary purpose the integration of scientific advances with the social structure."

#### The Soviet North Polar Station

DURING the last two months, the Soviet observatory placed on a floe near the North Pole in May 1937 has been drifting rapidly southward in the East Greenland current. Fortunately for the safety of Papanin and his three companions, the drift cleared the north-east corner of Greenland and the floe appears to have kept to the outside of the stream of ice down the coast. On February 3, the station was reported to be in lat. 74° 8' N., long. 16° 24' W., which was within about eighty miles of the Norwegian observatory of Myggbukten at the mouth of Franz Josef Fjord in East Greenland. It is reported that although this station is not functioning, it shelters a wintering party of four men provided with dog teams. To try to reach the shore, however, over the drifting and grinding pack would be difficult and hazardous. The floe on which the Soviet party is living has split; the men have lost some of their equipment and are now on a small floe, but they have their tents, instruments, three months' stores and sledges.

RELIEF for the expedition is being hurried forward, but will be impeded by the winter darkness and the difficulty of finding an adequate landing place for aeroplanes. *The Times* reports that the small wooden survey vessel *Murmanets* is near Jan Mayen, a distance of less than two hundred miles, and that the Arctic ship *Taimyr* has left Murmansk with aeroplanes and dog teams. Cinematograph equipment is being taken by the *Taimyr* and it is hoped to film the voyage of the vessel, the North Polar station, the removal of Papanin and his companions from the ice-floe and their return home. As the work will have to be done in the darkness of the Polar night, portable lighting equipment to be operated by current from the *Taimyr* is being taken. In the event of the vessel being unable to approach close enough to the ice-floe, a small portable generator and magnesium flares will be used. The *Taimyr* has been delayed by heavy weather and the more powerful *Murman* sailed from Murmansk on February 6. The icebreaker *Yermak*, with aeroplanes, was to leave Leningrad on February 8, but has a long journey ahead of her. Aeroplanes are also leaving Green Harbour, Spitsbergen. Prof. O. Schmidt is directing the relief operations. Papanin's message that wireless communication may be interrupted but that there is no immediate danger expresses the daring of these adventurous men. The Norwegian and Danish authorities have offered to assist in the rescue work.

#### Colour Television at the Dominion Theatre, London

ON February 4, a surprise item was introduced into the regular programme of the Dominion Picture Theatre, London. At 8 p.m. an experimental demonstration of Baird colour television was effected for



the first time in public. The sending station was the South Tower of the Crystal Palace, the wave-length employed being 8.3 metres. The quality of the pictures was naturally much inferior to those with which the present-day viewer is familiar: only 120 scanning lines being used as compared with the 400 lines now employed by the British Broadcasting Corporation. The projected picture was twelve feet by nine feet and could be clearly seen by everyone in this large theatre. It was illuminated by a high-intensity arc lamp. The programme included the transmission of fashion plates of ladies hats; the various coloured flowers were quite brilliant and the gaily and variegated headgear sometimes used by officers abroad came out very distinctly. A coloured cartoon of Popeye the Sailor caused much amusement. Colour television is still in the early stages of development, but the transmission was very successful and the unexpected show was well received by the spectators.

THE present apparatus used by Baird Television transmits a 120-line picture, the scanning at both transmitter and receiver being by mechanical means. The transmitter consists of a mirror drum with twenty mirrors inclined at different angles revolving at 6,000 r.p.m. These mirrors reflect the scene to be transmitted through a lens, causing an image to be formed on a rotating disk with twelve concentric slots at different distances from its periphery. By this means the field given by the 20-line drum is interlaced six times to give a 120-line picture repeated twice for each revolution of the disk. Each of the slots is covered with a light filter, blue-green and red being used alternately, the effect of this being to transmit alternate lines of the picture corresponding to a blue-green image and a red image. At the receiving station a similar device is employed, the rotating drum in this case being much larger (12 in. in diameter in place of the 8 in. at the transmitter). Light from a high intensity arc lamp is concentrated on the moving aperture in the disk and yields sufficient light to fill a screen 12 ft. × 9 ft.

#### Archæological Expedition to Syria

SIR LEONARD AND LADY WOOLLEY, it is announced, are leaving England for Syria, where the British Museum Expedition under Sir Leonard's direction will resume excavations immediately at Tell Atchana in the Amk plain on the Orontes, North Syria. This site, as has been shown by the previous seasons' excavations, has surpassed anticipation in its importance for the cultural relations of Asia and the eastern Mediterranean at an early date. The results which have been obtained already, as has recently been demonstrated by Sir Arthur Evans, when correlated with the information now accruing from the excavations of French archæologists at the Syrian site of Ras Shamra, have already thrown light on chronological and other problems of the Minoan civilization of Crete, as well as indicated the extent of Cretan influence on Asianic culture. The work of the British Museum Expedition in the coming

season will be devoted mainly to the further exploration and clearing of the palace, of which, as was pointed out by Sir Leonard Woolley in his recent lecture before the Royal Institution (see *NATURE*, January 29, p. 194), the architecture both in material and in style is as essentially Cretan as the painted pottery discovered on this site. It is hoped that additions to knowledge of political and social conditions of the time may accrue from further discoveries of the cuneiform tablets, from which it has already been established that the building is a royal palace dating to about 1600 B.C. Sir Leonard Woolley will be accompanied by Mr. P. W. Murray-Threepland, who will again act as his assistant, and by Mr. Ralph Lavers, acting as architect of the expedition, who has had previous experience of archæological investigation at Tell el-Amarna in Egypt and in Crete.

#### Dynamic Ecology of Sand Dunes

AT the Friday evening discourse at the Royal Institution on February 4, Prof. E. J. Salisbury discussed "Plants of the Sand Dunes and Why They Grow There". Sand dunes are a unique type of habitat. They depend on plants for their development. They show such rapid changes that the dynamic character of communities of plants is here forced upon our notice. Moreover, because a sequence in space corresponds to the sequence of development in time, the nature of these changes can be ascertained with certainty. The pioneer plants are rapidly growing grasses equipped with leaves which are so constructed that they automatically adjust their rate of water loss to the water income. Further, these grasses can endure burial by sand and are indeed stimulated thereby to grow through to the new surface. All these features enable them to endure the desert-like conditions and mobility of their rooting medium. Although the water content of young dunes is less than four per cent, it is maintained at a comparatively constant though low level owing to the occurrence in sunny weather of conditions that promote internal deposition of dew within the dunes. Sand dunes thus illustrate in a striking manner the dynamic character of vegetation and the fallacy of the widespread belief that to preserve a natural area all that is necessary is to leave it alone.

#### Dublin Zoo and Bird Sanctuary

AT the annual meeting of the Royal Zoological Society of Ireland, held at Dublin on January 26, Lord HolmPatrick was re-elected president, Dr. J. Agar Matson honorary secretary, Mr. Cecil Pim honorary treasurer. It was announced that Dr. B. B. Farrer, superintendent and secretary of Dublin Zoo for the past twenty-six years, is retiring. Dr. Matson reported that during the year 1937 there was an increased attendance at the Zoo of 152,173 visitors as against 151,109 in 1936, receipts having increased from £3,561 to £3,661. Membership increased by 54. The Government's grant of £1,000 was continued and various improvements and works are being carried out, the new bear enclosure now