

in order to test her wireless compasses. A wireless message during the evening reported that all was well and nothing further was heard until a German tanker, the *Phabus*, reported by wireless that the *Akron* had 'crashed' at sea and that four of the crew had been picked up, one of whom died later. One of the survivors is Lieut.-Comdr. H. Wiley, the second-in-command, who has recovered sufficiently to make a report on the disaster. The airship sighted a thunderstorm at 8.45 p.m.; later, the ship at 1,600 ft. appeared to be surrounded by lightning and about midnight she began to descend rapidly. Ballast was thrown out and she regained altitude, only to descend again a few minutes later. The rudder control was carried away as the airship crashed and it seems that the main part of the ship sunk almost immediately. The *Akron* was the largest airship in the world, her gasbags were filled with helium, and, at the time of the disaster, there were seventy-seven officers and men aboard, including Rear-Admiral William Moffett, chief of the U.S. Naval Bureau of Aeronautics. Rescue work was hampered by the weather, and a 'blimp' returning from a search for survivors was blown into the sea on attempting to land, one of the crew being drowned and the commander dying shortly afterwards. Yet another airship accident has been reported, this time from France, where the semi-rigid naval dirigible E9, crashed near Guerande on April 4, two of the crew of twelve being injured.

#### Science at the Ideal Home Exhibition

THE *Daily Mail* Ideal Home exhibition at Olympia which was opened by Mrs. Stanley Baldwin on March 29 and will remain open until April 29, is, as usual, a remarkable tribute to the influence science now exerts on the equipment of up-to-date houses. Thanks to the use of gas and electricity, the investigations of the chemist, physicist and metallurgist, the duties of every housewife are steadily being lightened and the comfort and convenience of everyone increased. The gradual improvement in the quality of food and in its preparation, and in all connected with lighting, heating and ventilation is indeed remarkable. New metals, new materials and new designs, and the application of scientific methods are seen on every hand. The exhibition occupies the Grand Hall, the National Hall and the Empire Hall, and in the first of these is an admirable and beautiful scheme of decoration which includes, as its outstanding feature, a portion of an immense rainbow composed of no less than 700 ft. of neon tubes, fitted up by Messrs. Venreco, Ltd.

WITHOUT attempting to refer to the many exhibits which owe so much to scientific research, attention may be directed to the interesting series of "Rooms of the Scientists" in the gallery of the Empire Hall, where "for the first time in history, are gathered together a collection of exhibits more romantic than any story, more sensational in their results than the wildest fiction". There are nine of these rooms showing respectively Archimedes in his villa at Syracuse; Roger Bacon in prison; Newton in his

study at Cambridge making his experiment on light; a part of the surgical ward at the Glasgow Royal Infirmary where Lister did his important work during 1861-69; the tent of Sir Ronald Ross in which he made his observations on the relation of the mosquito to malaria; Darwin's study at Down House in which he wrote "The Origin of Species"; a replica of Prof. Piccard's sphere in which he made his record ascent into the air; Faraday's laboratory at the Royal Institution; and lastly, the wireless cabin of the Marchese Marconi on his yacht *Elettra*. The tableaux are admirably arranged and the eminent men of science are represented by members of the theatrical profession, that of Newton, for example, being played by Mr. Rodney Barrie. The whole exhibit has been staged by Prof. A. M. Low for *Armchair Science*, with the assistance of many scientific bodies and individuals, including the British Museum, the Science Museum and the Royal Institution.

#### Bequests for Geological Research

MR. BERNARD HOBSON, of Sheffield, who died on December 3, left estate of the net value of £142,125. He bequeathed £1,000 to the Yorkshire Geological Society, Leeds; £1,000 to the Geological Society of London, to be called the "Bernard Hobson Fund", the annual income of which is to be used in buying British, Colonial and foreign geological maps, to be placed on linen conveniently folded for the pocket for use of the members of the Society; and £1,000 to the British Association for the Advancement of Science, to be called the "Bernard Hobson Fund", the annual income of which is to be devoted to promoting definite geological research. After making further bequests totalling about £3,000, Mr. Hobson left the residue of his estate to his brother and sister for life, with remainder to the University of Sheffield. Mr. Hobson had been a member of the Council of the University for some years. He belonged to a family which had taken a special interest in it. His father, Mr. John Hobson, was a member of the Council of Firth College, from which the University sprang. His brother, the late Sir Albert Hobson, as Master Cutler in 1903, took a leading part in the movement for the establishment of the University, and served successively as Treasurer of the University and Pro-Chancellor. Sir Albert, who died in 1923, also left the residue of his estate to the University.

#### Research Grant for the Cancer Hospital (Free), London

RECENTLY the investigations on the chemical aspects of the cancer problem which are in progress at the Research Institute of The Cancer Hospital (Free), Fulham Road, London, have received recognition and financial assistance from two sources. The trustees of the Halley Stewart Trust have made a grant for a period of three years to support a whole-time worker who will undertake biochemical investigations into the metabolism of cancerous growths. Dr. C. A. Mawson of the Victoria University of Manchester has been appointed to carry out this work.

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A grant has been received also from the International Cancer Research Foundation, an organisation established last year in Philadelphia by Mr. William H. Donner and endowed by him with a sum of 2,000,000 dollars. Although its administrative headquarters are situated in America, the Foundation is world-wide in its scope. The income of the fund is to be applied to assist research into the causes, prevention, control, relief and cure of cancer, and this income is to be so distributed that not less than 35 per cent nor more than 50 per cent is to be allotted in countries other than the United States. The trustees have awarded a sum of £1,000 a year for a period of two years to the Cancer Hospital Research Institute in support of investigations into factors which underlie the origin of malignant growths. This sum will provide two research studentships, to one of which Mr. G. A. D. Haslewood has been appointed. The two research students will undertake the investigations of special problems in connexion with the general scheme of research now in progress at the Cancer Hospital.

#### Protection against Lightning

WE welcome the handbook entitled "Code for Protection against Lightning", a revised edition of which has just been published (U.S. Government Printing Office, Washington, 1933, 15 cents). The number of fatalities from lightning in the United States is insignificant in comparison with the 100,000 annually from all other accidental causes. But the suddenness with which the flash happens, and the apparent impossibility of telling where it may strike next, may well frighten the bravest. Directions are therefore given for personal conduct during thunderstorms. If it is necessary to be out of doors, it is desirable to keep away from small sheds in exposed localities, isolated trees, wire fences, hilltops and wide open spaces. Shelter can be sought in a cave, a depression in the ground, a deep valley, at the foot of a steep or overhung cliff or in a grove of trees. Best of all is to stay indoors and keep away from fireplaces, stoves and all other large metal objects. Modern buildings are safe because of the protective effects of the metal used in constructing them and the metal piping on the exterior walls. The rules for erecting lightning conductors are now practically standardised. An approved protector should be placed as near as practicable to the point of entrance of an aerial telephone wire into a building. Metal radio masts should be bonded to the nearest lightning conductor. Wooden radio masts which extend six feet or so above the highest parts of the building should be provided with a connexion to earth. In an appendix, various kinds of lightning phenomena are described and modern theories are explained. A very instructive map is given showing the average number of days on which thunderstorms occur at many stations in the United States and Canada. There are very few thunderstorms on the Pacific Coast but at Tampa in Florida the number of days per annum on which thunderstorms occur is 94.

#### Archæological Exploration in Oaxaca, Mexico

RECENT reports received by Science Service, Washington, D.C., from Miss Emma Reh, who is engaged in archæological exploration in Mexico, point to the possibility of further discoveries bearing on the problem of the position of Mixtec culture and the area now known as the province of Oaxaca as a connecting link between the Mayan culture to the south and Mexican culture to the north. It will be remembered that this was the problem on which S. Alfonso Caso was engaged at the time he discovered the treasure tomb of Monte Alban a year ago. Miss Reh has recently examined the sites of two ruined cities in the mountainous Mixteca area, Teposcolula and Hualmelulpan, situated eighteen miles apart, neither of which had previously been recorded on the official archæological map of Mexico. Hualmelulpan was an important centre which once dominated the road from north to south. In the inner of two pyramids, built one over the other, Indians have found a number of sculptures and idols. Among them Miss Reh reports a sculptured slab which bears the date "Thirteen Stone Knife" in the Mayan numeral system, constituting an important link with the Mayan culture to the south. Among other material is a human figure more than six feet high carved from stone, which shows a snarling mouth armed with formidable fangs. This may be the ancient Mixtec deity Tepeyolotl, "Heart of the Mountains", often represented as a tiger. Pottery heads found on the mounds and terraces range in series extending from 'Mixtecan' to 'archaic'.

#### Accommodation for Paying Patients at Voluntary Hospitals

THERE is a growing demand for nursing accommodation for those who, unable to pay the charges of a nursing home, desire better accommodation or more privacy than is provided in ordinary hospital wards and are willing to pay for it. King Edward's Hospital Fund for London has therefore issued a list of the 'pay beds' at hospitals making returns to the King's Fund, with particulars of the accommodation and of the normal weekly charge. The pamphlet may be obtained from the Fund, 7 Walbrook, E.C.4, price 3*d.* including postage.

#### Health of the British Army during 1931

IN the report on the health of the army for the year 1931 (H.M. Stationery Office. 2*s.* 6*d.* net), the Director-General, Lieut.-Gen. Fawcus, states that the health of all ranks both at home and abroad was satisfactory. With an average strength of 181,508, the principal causes of admission to hospital were influenza, malaria, and venereal diseases, with 8,324, 7,191, and 5,865 cases respectively. Tonsillitis accounts for 5,752 cases, a decrease over the previous year. Dysentery has increased somewhat. Venereal diseases have shown an almost steady fall during the last ten years, from 70 per 1,000 strength in 1922 to 33 per 1,000 in 1931.

#### Californian Earthquake of March 10

LATER accounts of this earthquake show that, though stronger than the Santa Barbara earthquake