

discovery is the nature of the root of the nose, which is broad and flat and quite unlike that of Piltown man.

The newly discovered skull was found in association with a number of teeth which can be assumed to have belonged to the same individual. This fact adds to the interest of two mandibles found in 1928 in association with the crushed parts of the respective braincases.

The remains of four skulls of *Sinanthropus* and teeth of at least six other individuals have so far been found. Thus there is available for study in China a much richer material of early Pleistocene man than the fragments of the individual specimens of *Pithecanthropus* and *Eoanthropus* provide. Moreover, the geological age of the Chinese fossils can be established with more certainty than that of the other two primitive genera, which are assumed to be roughly contemporaneous.

The fossils from Java and Sussex were found in gravels, where they had been deposited by running water. Although there is little doubt which of the heterogeneous fossils found in these gravels were contemporaneous with the human remains, in the case of the men of Peking, who left their bones in the cave where they lived, there is less room for doubt that the bones of animals deposited alongside them provide more certain data for the estimation of their geological age. Thus the claim made by

Père Teilhard de Chardin and Dr. C. C. Young that *Sinanthropus* lived in Lower Pleistocene times rests upon a surer foundation than the similar claims that have been made in the cases of *Pithecanthropus* and *Eoanthropus*.

Further, the conditions under which the discoveries are being made at Chou Kou Tien hold out a greater promise of further evidence than in the cases where the fossils have been scattered by running water. Thus a series of fragments have already been recovered every autumn since the type tooth was recovered in 1927, and it is not unreasonable to expect that much more still remains to be found in this cave, and possibly in other fossil beds in the neighbourhood. So far no worked tools have been found in the cave; but if such should be recovered, their association with the human remains will be less uncertain than in the case of the other Pleistocene men's implements.

For these reasons, in addition to the intrinsic interest and morphological significance of the skulls of *Sinanthropus*, the discoveries in China have an importance which is unique. It is a matter for congratulation that the investigation of this site should have fallen into such competent hands and that ample facilities and skilled assistance should be available for the work, which is being conducted with great thoroughness and insight.

### News and Views.

PROF. ELLIOT SMITH'S announcement in another column of this issue that Dr. Davidson Black has reconstructed still another skull of Peking man from material obtained from the now famous cave of Chou Kou Tien is assuredly welcome though perhaps not entirely surprising. Four skulls and teeth belonging to probably six individuals have now been obtained from this source, and it is therefore evident that the fortunate explorers have lighted upon what must have been the final resting place and perhaps the home of a family group or horde of this type of early man. So far, no implements have been found which would determine the cultural horizon of Peking man, but the conditions of discovery are such as to afford grounds for hope. It is at any rate fortunate that the association of the remains with fossilised bones of animals assigned with some confidence to the Lower Pleistocene appears to place the date beyond question. Dr. Davidson Black has pronounced his latest skull to be that of a young adult male, while that found in December last is said to be that of a young woman. Comparative study of the two will no doubt be fruitful of results. A first inspection of the new skull has already yielded a new character of the nose in which it presents a marked difference from the Piltown skull. A more detailed examination of the two skulls than is yet possible will be necessary before it can be determined what are the precise relationships of Peking man and other early types. It is already clear, however, that these remains will make possible a further advance in the reconstruction of man's ancestral forms. Prof. Elliot Smith is sailing for

China on Aug. 14, and in this connexion the results of his personal examination of the material will be awaited with the keenest interest.

IN the interesting little church at Longfield, Kent, close to Fawkham Station, is to be seen the memorial window erected by some members of the University of Cambridge to the memory of Dr. Thomas Plume, the founder of the Plumian professorship of astronomy, of which Sir A. S. Eddington is the present holder. Though never rector of Longfield, Plume for many years lived at Longfield Court, just behind the church, and he died there on Nov. 24, 1704. At his death Plume was seventy-four years of age, having been born just three hundred years ago, in the summer of 1630. The exact date of his birth does not appear to be known, but he was baptised on Aug. 18, 1630, in All Saints' Church, Malden, Essex, of which place his father was an alderman. Educated first at Chelmsford Grammar School, Plume entered Christ's College, Cambridge, and at the age of nineteen took the degree of M.A. Entering the Church, in 1658 he was made vicar of Greenwich, a living then in the gift of Richard Cromwell, and both Pepys and Evelyn speak of his excellent preaching. This important living he held for the remainder of his life, but from 1679 onward was also Archdeacon of Rochester.

LIKE Lucas and Lowndes, the founders of two other famous professorships at Cambridge, Plume did not add to mathematical or astronomical knowledge, but he lived in an age when among men of education

some acquaintance with science was considered a desirable acquisition. Moreover, as vicar of Greenwich when the Royal Observatory was built, he became known to Flamsteed, and it is said that on Flamsteed's recommendation he read Huygens' "Cosmotheoros". It is also said it was the perusal of this work which induced him to leave a part of his fortune to found a professorship and erect an observatory at Cambridge. Newton and Flamsteed were both connected with the arrangements made to carry out Plume's wishes, and when Roger Cotes was appointed to the Plumian professorship in 1707, the King's gate of Trinity College was appropriated to his use, while the observatory erected over the gateway was described by Bentley as "the commodiousest building for that use in Christendom". In spite of the provision of the observatory, little was accomplished in the eighteenth century, and a report of 1792 said that "the professor had neither occupied the said rooms and leads nor fulfilled the conditions for at least fifty years". Instruments and observatory alike had fallen into disrepair, and a few years later the observatory was demolished. A new observatory was built in 1822; with the appointment of Airy as Plumian professor in 1828, astronomical studies at Cambridge were pursued with greater energy, and under his successors much has been done to add prestige to the chair which perpetuates the name of its generous and enlightened founder.

THE Earl of Harewood performed a useful service to the agricultural community by initiating the discussion in the House of Lords on July 22 on the position of the Royal Veterinary College, Camden Town. He pointed out that the position of the College was so desperate that unless further substantial guarantees of capital and income from Government and private sources were immediately forthcoming, the governors would have no alternative but to give notice of their intention to close and to refuse to accept any new students. The annual deficit of the College is a diminishing one owing to the fact that students' fees are increasing year by year and private subscriptions are also bringing in a larger yearly income; but the College buildings are in an irreparable state of disrepair and their entire reconstruction is an imperative necessity. An appeal for the necessary funds to make the College worthy of its cause was made three years ago, but of the £350,000 needed only £30,000 had been raised from those who have most to gain from the maintenance of the supply of adequately trained veterinarians, namely, the great breeders of pedigree cattle, small farmers, sportsmen, and animal lovers generally. The governors of the College had asked the Ministry of Agriculture and Fisheries for advice and a Departmental Committee was appointed. This Committee reported a year ago and recommended that the governors should purchase for £20,000 the freehold of the land in Camden Town from the Ecclesiastical Commissioners, spend £280,000 on new buildings, provide £25,000 for a research laboratory outside London and affiliated to the College, and guarantee an income of £21,000. No reference was made in this report to the financial help the Government might be expected to give, although

the offer of £100,000 made by the Government in 1918 presumably still held good, although this offer had been contingent upon the College removing to Cambridge.

A FURTHER appeal for financial assistance was recently made to the Government by the governors of the College, whereupon a further Departmental Committee was appointed which modified the above proposals by suggesting that the purchaser of the freehold was unnecessary, that £250,000 instead of £280,000 be spent on new buildings, towards which the Government would be prepared to contribute £70,000 in addition to pound for pound of the subscriptions raised from private sources. Further, the Government was prepared to make a final grant of £50,000 when the sum collected by the governors from all sources had reached £200,000. This offer Lord Harewood, Lord Ernle, and others characterised as not sufficient to justify the governors committing themselves to keep the College open. Lord Ernle suggested that the British Government lagged behind those of other countries in its encouragement of veterinary education, citing the case of Germany, which provides £280,000 a year for this purpose. After Lord Phillimore had pointed out that he had been asked, as the chairman of a veterinary sub-committee on the 'pig', to emphasise the need for more attention to be given by pig-breeders to research, but that it was useless for him to do so unless there were enough veterinary experts adequately trained to make use of the results of such research, Lord De La Warr, on behalf of the Government, invited to a conference those interested in veterinary education and the future of the Royal Veterinary College, in order that the governors of that institution might reconsider the position. Since then, a further powerfully worded appeal has been made to the Government by Sir Merrik Burrell, chairman of the governors of the College, in a letter to the *Times*. Apparently these appeals have not been fruitless, for Lord Harewood, in his address to the eleventh International Veterinary Congress, which he opened on Aug. 4, expressed the hope that the position of the Royal Veterinary College would soon be remedied.

A RECENT Order in Council directs that the Lord President of the Council (Lord Parmoor), the Minister of Agriculture and Fisheries (Dr. Addison), the Home Secretary (Mr. Clynes), the Secretary of State for Scotland (Mr. W. Adamson), and the President of the Board of Education (Sir Charles Trevelyan) shall be a Committee of the Privy Council for the organisation and development of agricultural research. It is also ordered that during His Majesty's pleasure the Lord President of the Council shall be the chairman, and the Minister of Agriculture and Fisheries vice-chairman of the Committee. No information is vouchsafed regarding the relationships between this new body and the Development Commission, the Agricultural Research Council, and the Empire Marketing Board, all of which are concerned with the promotion of agricultural and fisheries research. Presumably this new committee, the personnel of which is exclusively political, will undertake the task of co-

ordinating the efforts of these other important bodies, although the further announcement made in the House of Commons on Aug. 1 by the Chancellor of the Exchequer (Mr. Snowden) creates the impression that it will be concerned mainly with the appointment of *ad hoc* committees for advising the Government on schemes for the prosecution of research on urgent problems confronting the agricultural community. It is to be hoped that the Government will make a further announcement or issue an explanatory memorandum defining more precisely the functions of this new Committee of the Privy Council, and why it differs so radically in constitution from those already in existence for the prosecution of medical research and scientific and industrial research.

THE visit of H.R.H. the Duke of York on July 30 to the works of the British Aluminium Company at Fort William, N.B., may be said to mark in a quasi-formal way the inauguration of the very notable hydro-electric undertaking known as the Lochaber Power Scheme, which has been promoted by the company for the purpose of supplying power to its factory for the production of aluminium. The portion of the undertaking which is so far completed has been in operation for the past few months, but the plant at present installed, with a capacity of 50,000 horse power, represents only about half the energy available when the sources of supply are developed to their full extent. As it stands, however, the installation is of a remarkable character, being the most important of its kind in Great Britain and ranking high among similar undertakings throughout the world. The scheme is designed to utilise the impounded water contained in Loch Laggan and Loch Treig, at a height of about 800 ft. above sea level, to drive turbines in the power house at Fort William a few feet above the same datum. In order to connect the two lochs and convey the water therefrom to Fort William, tunnelling through the intervening mountain rock is necessary for an aggregate distance of 19 miles, and of this, a length of 15 miles, constituting the portion connecting Loch Treig with the Power House, has been completed. The Lochaber Tunnel, as it is designated, is one of the longest tunnels in the world, and far longer than any other in Great Britain. Its nearest rival on the Continent is the Simplon Tunnel between Switzerland and Italy, which is  $12\frac{1}{4}$  miles in length. The Shandaken Tunnel for the water supply of New York is slightly more than 18 miles long, but in cross sectional area it is less than the Lochaber Tunnel, which is approximately circular and 15 ft. in diameter. The Power House at Fort William contains, at present, five main turbo-generator units each of 10,000 horse power. The inception of the Lochaber scheme is due to Mr. Murray Morrison, director and general manager of the British Aluminium Company, which in 1921 obtained powers under the Lochaber Water Power Act for its realisation. The engineers are Messrs. Meik and Halcrow of Westminster.

A CEREMONY of striking appropriateness took place at Inchnadamph, in the wilds of the north-western highlands of Scotland, on July 25, when a memorial to Drs. B. N. Peach and John Horne was unveiled by

Sir John Flett. Mr. H. M. Cadell of Grange, who presided over a company which included many well-known Scottish scientific workers, recalled the days when with Peach and Horne he commenced the final survey of the much discussed structure of the Western Highlands, and gave a summary of the dispute which had centred upon that complicated region, and had at length been settled through the labours of his former colleagues. In dedicating the memorial, Sir John Flett described its site as properly selected in the centre of a remarkable area to which the discoveries and interpretations of Peach and Horne had given world-wide fame, a temple of geology to which geologists from all parts of the earth made pilgrimage. He paid a warm tribute to the work of his friends, to their spirit of co-operation and goodwill, and to the single-mindedness of their scientific endeavours. The memorial, a massive pillar of stone set on a height overlooking Loch Assynt, carries a bronze tablet with the inscription: "To Ben N. Peach and John Horne, who played the foremost part in unravelling the geological structure of the North-West Highlands, 1883-1897: An international tribute. Erected 1930."

UNDER the title of "The Organisation of Mosquito Control Work" Mr. John F. Marshall, Director of the British Mosquito Control Institute, Hayling Island, Hants, has issued a useful practical pamphlet. Its contents formed his presidential address in the Zoology Section of the South-eastern Union of Scientific Societies at the Portsmouth Congress held in May last. The object of this pamphlet is to describe, in simple language, the best methods of suppression of mosquitoes in England. It is pointed out that these insects must be dealt with during the larval or pupal stages of their existence, and that the most satisfactory method is to do away with the water in which such stages are passed. This may be a simple matter in so far as water butts or small ponds are concerned. With ditches, large pools, or marshes, drainage is required, but this procedure, for various reasons, is often quite impracticable; in such cases the problem is best dealt with by covering the surface of the water with oil, or by mixing chemicals with the water so as to poison the larvæ. In the case of ornamental ponds or lakes, fish, water bugs, and various other creatures which devour the eggs or larvæ are to be encouraged, and the addition of oil or chemicals to the water is then undesirable or harmful.

MR. MARSHALL gives a list of the British mosquitoes grouped according to their habitats or, in other words, according to the nature of the environment in which each species lays its eggs and where, in consequence, its larvæ are to be found. The first step to be taken is to find out what species are present, and when this has been done the anti-larval campaign is simplified. It then becomes possible to seek out their breeding places and take necessary measures at the right time. Indiscriminate oiling of all and sundry collections of water is wasteful and of little use. As an example it is mentioned that at a children's hospital where sleeping out of doors was part of the treatment, mosquitoes rendered this procedure impossible at certain times of the year. All tanks and butts were regularly sprayed

with paraffin in the hospital grounds, without result. Afterwards specimens of the offending insects were sent to the Mosquito Institute, and the species was found to be *Aedes punctor*, which breeds chiefly in pine woods. A number of small pools occurred in the neighbouring woods, and since these have been abolished further annoyance from mosquitoes has been avoided. Methods of identifying mosquitoes either from the larvæ or adults are briefly described. It is further pointed out that adequate control work needs the services of an inspector who, after identifying the species concerned, examines their breeding places and advises whether the collections of infested water shall be oiled, poisoned, or abolished. The pamphlet, it may be added, can be obtained at the British Mosquito Control Institute, price 9d.

It is now generally admitted that the radiation of the sun varies when periods of a month or more are considered, and the comparison of data from different stations is justifying Dr. C. G. Abbot's view that there also exist variations from day to day. In a paper entitled "The Atmosphere and the Sun", published as No. 7 of vol. 82 of the Smithsonian Miscellaneous Collections, Mr. Clayton sets out his grounds for adopting two further conclusions, namely, that these solar variations are periodic, and that they provoke definite reactions in terrestrial weather, which behave in a complicated but still predictable manner. The first element of weather to be affected is naturally temperature, but this is complicated by changes of cloudiness, and for the most part the author deals with waves of pressure. As a result of a somewhat superficial discussion, he concludes that there are systematic differences between the pressure distribution over the northern hemisphere associated with high solar radiation and that associated with low radiation, the effects changing from one latitude to another, from season to season, and from land to sea. The differences found are small, however, and as no criteria of reality are given, it is impossible to tell to what extent they are accidental. The disturbances once set up travel like ordinary barometric systems, and since the solar changes which cause them are periodic, the results are series of supposedly regular waves of pressure in all parts of the world. Mr. Clayton thinks that when the sudden changes of phase and amplitude which mar these 'cycles' are understood their use will supplant all other methods of forecasting, but one fears that this day is very distant. Nevertheless, this is an interesting study, which opens out a distinctly promising line of investigation.

FURTHER light has been thrown on the development of the circle in Britain by recent excavations carried out by Captain and Mrs. Cunnington on a site known as "The Sanctuary", on Overton Hill, between Marlborough and Devizes. Stukely records that the double circle on Overton Hill was destroyed in 1724; but nothing was known of it beyond the fact that it had consisted of two circles of sarcens, until Captain and Mrs. Cunnington succeeded in locating its position by ingeniously making use of a clue afforded by

Stukely's theory that Avebury and "The Sanctuary" were connected with serpent worship, and that Avebury was the body and Overbury the head of the serpent. An account of their excavations was presented at the annual meeting of the Wiltshire Archæological Society, of which a report appeared in the *Times* of Aug. 1. The excavations revealed not only the position of the stones of the double circle, but also holes in which had stood wooden posts forming six rings concentric with the stone circles. This site, being so closely connected with Avebury, thus links up the latter with "Woodhenge" (Durrington Walls), the forerunner of Stonehenge. One burial only was found. With this was associated a small vessel of 'beaker' type. It is, therefore, suggested that the original construction took place in the early Bronze Age, and that when later—still in the early Bronze Age—Avebury was constructed and the two sites connected by an avenue of standing stones, the wooden posts of "The Sanctuary" were replaced by two circles of standing stones. Captain and Mrs. Cunnington have added further to their great services to British archæology by purchasing the site on Overton Hill, and they now propose to reconstruct the wooden and stone circles by erecting concrete pillars as they have already done on their previously purchased site of Woodhenge.

In an article published in the *Times* for July 31, Dr. C. Davison gives a new estimate of the average annual loss of life by earthquakes. During the last century covered by Milne's great catalogue of destructive earthquakes (1800-99), there are recorded by him 364 earthquakes of the highest degree of intensity and 510 of the second degree—those of the lowest degree do not contribute sensibly to the loss of life. From 1601 to 1900, the number of persons killed by the most destructive earthquakes in Italy was 4222 per earthquake, and by those of the second degree 8.3, so that, if the same rates governed all earthquakes, the mean annual loss for the whole world would be 15,410. The stronger Japanese earthquakes of the eighteenth and nineteenth centuries give an average of 3892 deaths per earthquake or of 14,169 every year for the whole world. Dr. Davison thus concludes that, on an average, fourteen or fifteen thousand persons are killed by earthquakes every year, a number that is much less than the number killed by motors annually in the United States, and not much more than twice the number killed in Great Britain.

THE three expeditions which Dr. Johs. Schmidt describes in the "Introduction to the Oceanographical Reports" (Danish *Dana* Expeditions, 1920-22, Copenhagen, 1929) were the post-War continuation of the researches on the development and breeding of the European eel begun in 1903 with the *Thor* and *Margrethe*. As soon as possible after the War, three cruises were made to the Sargasso Sea, two of which were undertaken in the auxiliary schooner *Dana I.*, and were confined mainly to the study of pelagic fauna. The third and most extensive voyage was made with the Royal Danish R.S. *Dana*, a steam trawler of the Lord Mersey class, adapted for marine research. The programme on this occasion was

augmented by physical observations, notably hydrographic sections across the North Equatorial Current and the Gulf Stream. Some of the results then obtained in the Gibraltar straits were published in *NATURE* of Jan. 12, 1922. A seasonal periodicity in the biological phenomena of the Sargasso and Caribbean Seas was demonstrated, and a number of very young larvæ of the European eel (and possibly the ova also) were taken in the Sargasso Sea at between 200 and 500 m. depth, thus completing the series of developmental stages. Dr. Schmidt and his colleagues have now returned from a two years' expedition, the most ambitious so far undertaken with the *Dana*, to the Pacific Ocean, where the breeding habits of the eels common to those waters have been found similar, though with less extensive migrations, to those of the Atlantic forms.

The announcement has just been made that the whole human population of St. Kilda is to be evacuated from the island in September next, 27 to Mull, 8 to Skye, 1 each to Glasgow and Inverness; and thereafter St. Kilda will take its place with North Roma and others of the Scottish isles, which, once inhabited, have become derelict. In this connexion a short article in the *Scottish Naturalist* (p. 69), by Dr. James Ritchie, discusses some of the unique features of the fauna of St. Kilda, its indigenous wren, field-mouse, and house-mouse, and its Soay sheep, the most primitive of surviving races of domesticated sheep. He also endeavours to show how the change in the feeding habits of the human population when it was brought in regular contact with mainland civilisation, first in 1877, affected the numbers of fulmar petrels breeding on the islands. This was ultimately responsible to a great extent for the extraordinary exodus of fulmars which has resulted in the colonising of many of the islands and of the mainland cliffs so far south as Flamborough Head.

SEARCHLIGHTS are usually associated with naval and military operations. It is not generally realised that there is a great demand for them for commercial purposes, such as canal lighting, the flood lighting of buildings, and cinema studios. There are manufacturing firms which are mainly if not solely engaged in making searchlights and projectors of all types and sizes. In the *British Engineers' Home and Export Journal* for July, a description is given of very large searchlights manufactured by the London Electric Firm, Croydon, for a continental government. The candle power of each searchlight was rated by the National Physical Laboratory as 3500 million. This means that if the horizon were sufficiently far away and meteorological conditions were suitable, the lights would be visible for hundreds of miles. These lights are to be used for frontier defence, and although they are seven feet in diameter can easily be controlled electrically by an operator at any distance away. By means of a signalling shutter mechanism, morse signals can be sent by the beam. The same firm has also made searchlights for use in navigating the Suez Canal at night. They send out a divided beam illuminating each side of the canal and leaving a dark patch in

the centre so as to avoid dazzling the eyes of the pilot of a ship coming in the opposite direction. The electric carbons burn for 6½ hours, thus obviating the necessity of trimming the lamp when in the canal. The lamps used in cinema studios give either 'spot' or wide angle lighting. Searchlights are also used in aerodromes for fog penetration and for 'writing' on the clouds.

THE "Bulletin de l'Union des Sociétés Savantes Polonaises de Léopol (Lwow)" for 1927-1928 records the successful attempt of a local bureau to bring together the work of the local branches of Polish learned societies. It has been edited by Prof. Sigmond Czerny, (15 rue Tarnowskiego) of the University of Léopol. One hundred pages comprise reports from some three dozen societies. Contacts are maintained with a wider world through Paris and America, by exchanges of periodicals and by representatives to international congresses. The interests of the bureau include much recording of unhappy histories, some care of orphans and widows, cemeteries ancient and modern, excursions to historic monuments, the collection of books and archives into museums and libraries, archæology, jubilees and centenaries of brighter moments, folklore, regional survey, heraldry, classical studies, school geography, local natural history, Slavonic philology and ethnology, the glacial epoch, reorganisation of finances, economic discussions in collaboration with the ministry, publications in Polish with abstracts in French, English, Latin or German, international law in relation to Chorzow and Dantzig, echoes of western science, some medical and mathematical research. The general picture presented by these reports is that of a struggle out of confusion and towards the light. The particular device of a local bureau of local branches of national societies is one that might be useful elsewhere, if only as a clearing-house for harmonising time-tables.

It is announced in the *Journal of the Society for the Preservation of the Fauna of the Empire* for 1930 that in future the *Journal* will be issued more frequently, and an appeal is made to members for articles on any matter relative to the conservation of wild life. The present number, apart from recording the activities of the Society during the past year, contains some interesting extracts from faunal reports dealing with various parts of the Empire. In Uganda the "astonishingly small number of young gorillas in the troops" is attributed to the attacks of leopards; in Victoria it has been found that the complaints of fishermen regarding the serious menace of seals to fisheries have not been substantiated; and the success of the inoculation of domestic stock in Southern Rhodesia against trypanosomiasis is a matter of first-rate importance to the wild life of the country, as well as to the farmer.

THE Arctic archipelago of Franz Josef Land, now within the realm of Soviet jurisdiction, is seldom visited except by Norwegian walrus and bear hunters, although the scientific knowledge of the group is due chiefly to British, Austrian, Italian, and American expeditions. It is useful to have a summary of what

is known. This has been prepared by Dr. G. Horn and appears as No. 29 of *Skrifter om Svalbard og Ishavet* (Oslo, 1929). The paper includes a fairly complete bibliography and a sketch map showing the routes of the chief expeditions. Dr. Horn antedates the discovery which is generally attributed to J. Payer in 1873 to two Norwegian sealers in 1865. He cannot, however, adduce any written evidence of the discovery of North-East Spitsbergen in that year or proof that the land called by this name was Franz Josef Land, although the identity is not impossible.

THE Medical Research Council has appointed Major A. G. Church, M.P., Col. F. E. Fremantle, M.P., and Sir John H. Parsons to be members of its Industrial Health Research Board.

SIR CHARLES MARTIN, who will shortly retire from the directorship of the Lister Institute, has accepted a pressing invitation from the Commonwealth Council for Scientific and Industrial Research to take charge of its Division of Animal Nutrition for at least two years. This Division was established in 1927 under the late Prof. T. Brailsford Robertson, and has been concerned mainly with problems of wool production. The central laboratory is in the grounds of the University of Adelaide, while there are eight field stations scattered over the more important pastoral areas. Sir Charles Martin will probably leave England towards the end of December and will break his journey at South Africa in order to visit the veterinary research station at Onderstepoort.

THE thirty-sixth annual report of the governing body of the Lister Institute of Preventive Medicine has recently been issued. It contains a brief but useful and interesting survey of the researches which are, or have been, in progress during the year in the various departments of the Institute. Sir Charles Martin, the Director, and Prof. Arthur Harden will be retiring under the age limit towards the end of this year, and the governing body has appointed Prof. J. C. G. Ledingham and Dr. R. Robison to fill the vacancies thus created, the appointments to date from Jan. 1 next.

THE fact that cancer occurs with some frequency in human beings, for example, mule-spinner operatives, as a result of contact with lubricating mineral oils, has caused some alarm among those taking mineral oils for medicinal purposes. We learn from a recent *Science News Bulletin* (Science Service, Washington, D.C.) that Dr. Francis Wood of the Institute for Cancer Research, Columbia University, has tested several makes of medical mineral oil for the presence of carcinogenic properties upon mice, of a strain known to be liable to the development of cancer, by painting the skin and by internal administration. The results were negative, so that mineral oils of the type used for medical treatment may be regarded as being free from any risk of producing cancer.

CATALOGUE No. 13 of second-hand books (543 in number), on mammals, birds, insects, shells, etc., geology, fossil plants, botany, and horticulture, has

just been issued by Mr. J. H. Knowles, 92 Solon Road, S.W.2.

THE Cambridge University Press announces the publication in September of vol. 3, in 2 parts, of Prof. Karl Pearson's "Life, Letters and Labours of Francis Galton"; IIIA will deal with "Correlation, Personal Identification and Eugenics", and IIIB with "Characterisation, especially by Letters".

THE latest catalogue (No. 528) of Messrs Francis Edwards, Ltd., 83 High Street, Marylebone, W.1, deals with books, pamphlets, engravings, maps, and original drawings relating to Latin America, the British colonies of the Falkland Islands, Honduras, and Guiana offered for sale by the firm. The catalogue, which is an interesting one, contains upwards of a thousand items.

UNDER the title of "Principles and Practice of Geophysical Prospecting", and edited by Mr. A. Broughton Edge and Prof. T. H. Laby, the Report of the Imperial Geophysical Experimental Survey will be published by the Cambridge University Press in December. The work is in two parts, one dealing with the actual field results obtained in Australia, and the other giving a more theoretical discussion of the subject, which, it is hoped, will be of service to students of practical geophysics in English-speaking countries.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—An assistant at the Road Experimental Station of the Ministry of Transport Roads Department at Harmondsworth, near Colnbrook, Middlesex—The Establishment Officer, Ministry of Transport, Whitehall Gardens, S.W.1 (Aug. 11). An engineer in the Midland Division of the Ministry of Transport Roads Department—The Establishment Officer, Ministry of Transport, Whitehall Gardens, S.W.1 (Aug. 11). An assistant lecturer in agricultural biology (bacteriology, botany and zoology), at the East Anglian Institute of Agriculture, Chelmsford—The Clerk of the County Council, Shire Hall, Chelmsford (Aug. 12). A lecturer in engineering at the Plymouth and Devonport Technical College—The Secretary for Education, Rowe Street, Plymouth (Aug. 16). Four technical assistants (either sex) at the Manchester Royal Infirmary, for clinical laboratory work—The Chairman of the Medical Board, Royal Infirmary, Manchester (Aug. 16). A horticultural instructor for Norfolk County Council—The Horticultural Superintendent, 30 Cattle Market Street, Norwich (Aug. 21). A professor of physics, and head of the department, in the Muslim University, Aligarh, U.P., India—Vice-Chancellor S. R. Masood, Box 24, c/o NATURE Office (Aug. 23). A general secretary of the Eugenics Society—The Honorary Secretary, Eugenics Society, 20 Grosvenor Gardens, S.W.1 (Sept. 15). A Norwegian professor of marine engineering in the Technical University of Norway—Kirke-og Undervisningsdepartementet, Oslo, Norway (Oct. 1). A medico-physicist to organise and take charge of the Sheffield National Radium Centre—The Secretary, Royal Infirmary, Sheffield.