

News and Views

National Service Committee for Scientific Research

THE Central Register Advisory Council of the Ministry of Labour has appointed the following Committee for Scientific Research: A. V. Hill (chairman); C. G. Darwin (mathematics); E. V. Appleton (physics); J. C. Philip (chemistry); R. V. Southwell (engineering sciences); E. B. Bailey (geology); V. H. Blackman (botany); D. M. S. Watson (zoology); A. V. Hill (physiology); W. W. C. Topley (pathology); F. C. Bartlett (psychology); Director of Scientific Research, Admiralty; Director of Scientific Research, War Office; Director of Scientific Research, Air Ministry; Department of Scientific and Industrial Research; Medical Research Council; Agricultural Research Council. Ten sub-committees for the consideration of the several subjects have been co-opted.

Broadcasting by Telephone

THE Postmaster-General announced in the House of Commons on March 30, that the Post Office is to proceed immediately with the introduction of a system of distributing broadcasting programmes over the line telephone network. This service will be additional to that of the existing relay companies, the licences of which will also be extended for a further period of ten years to December 31, 1949. The new telephone broadcasting service will be operated on the so-called 'wired wireless' or carrier-current system, which is already in use to some extent in Great Britain and other countries for ordinary line telephony; a radio frequency carrier current, with the appropriate programme modulation, will be transmitted over the telephone lines, and a complete wireless receiving set will be used at the subscriber's end of the line. Three or four alternative broadcast programmes will be provided, the selection to be carried out by adjusting the receiver, and it will be possible to use the telephone simultaneously with the reception of a broadcast programme. The new service will be restricted at first to telephone subscribers, and the question of its extension to non-subscribers will be deferred pending experience of its working. From the point of view of national defence, the new service will have the advantage over the existing broadcasting system of reduced liability to interruption or interference; it is not intended, however, that any restriction shall be placed upon the wireless broadcasting programme service at the present time. The existing relay companies transmit merely the audio frequency currents over a special line network to loud-speakers on the subscribers' premises, and the service is usually limited to a choice between two programmes provided from the relay exchange. The new licences issued to these companies will require that these exchanges shall be connected to a B.B.C. station by wire, and that in time of emergency they shall transmit any special announcements ordered by the local A.R.P. or police authorities.

H.M. Aircraft-Carrier *Ark Royal*

THE annual session of the Institution of Naval Architects, was held in the Royal Society of Arts during March 29-31. Lord Stonehaven, the president of the Institution, reviewed the events of the last year in his opening address. Sir Stanley Goodall, Director of Naval Construction for the Admiralty, then read an interesting paper describing H.M.S. *Ark Royal*, the first ship to be designed exclusively as an aircraft carrier. As it is not the function of this type of ship to fight a gun duel, its armament consists mainly of aeroplanes. The ship carries a few guns capable of both high angle and low angle fire. She has a heavily armoured deck, side-armour adequate against medium guns, and improved underwater protection. 103,000 horse-power on three shafts gave her a speed in trials of $31\frac{1}{2}$ knots and special attention had been given to rapid manœuvring. The auxiliary machinery is both electric and hydraulic. Special aircraft fittings include two catapults at the fore end of the flying deck, arresting wires at the after end for aircraft landing on it, hydraulically operated wind screens which fold down flat when necessary and three two-story lifts which take aircraft with their wings folded. Electric welding was used extensively in her construction, and this lessened her weight by 500 tons. In the discussion which followed the paper Sir George Preece, engineer-in-chief to the Navy, said that owing to the necessity for rapid manœuvring it was found necessary to have two engineers of the watch, one for general control and one for direct supervision. The large rudder immediately abaft the centre propeller was invaluable when turning at rest. In the last cruise, 1,400 aircraft landings on deck had been made without a scratch. 'Landing on' had proved safer than driving a car on an English road.

Emergency Medical Arrangements for War-Time

PREPARATIONS for dealing with casualties in the event of war are now well advanced. The Ministry of Health has issued circulars to local and other authorities under the Air-Raid Precautions Act, 1937, indicating the organization of emergency ambulance services, and of first-aid posts (Circulars 1787 and 1789. H.M. Stationery Office. *2d.* and *3d.* net, respectively). An emergency Hospitals Scheme for London has also been prepared. This scheme is based on the affiliation of certain casualty hospitals in the more vulnerable areas to others in outer areas. In London this affiliation is arranged in ten sectors radiating from the centre. Each of these sectors contains voluntary and municipal hospitals of widely differing types, including the great teaching hospitals, local authority institutions, mental hospitals, specialized hospitals, cottage hospitals, and others. It is proposed that the casualty hospitals near the centre of each sector should be used so far as possible for immediate treatment only, and that the injured

should be transferred at the earliest opportunity from the centre to affiliated casualty base hospitals in the outer areas.

The Palaeontographical Society

At the annual meeting of the Palaeontographical Society held in the rooms of the Geological Society on March 31, the Council reported that the Society's ninety-first annual volume had been issued during the past year. This volume contains the first part of a new monograph on the Carboniferous Rugose Corals of Scotland by Dr. Dorothy Hill. Largely based on the extensive and oft-quoted material studied by James Thomson and afterwards disorganized by the fire in the Kilmarnock Museum in 1909, this monograph introduces considerable simplification in systematic nomenclature. Further instalments of the monographs on Cambrian trilobites by Mr. P. Lake and on corallian ammonites by Dr. W. J. Arkell are also included in this volume. The work of the Society in publishing illustrations and descriptions of fossils collected in Great Britain has been materially assisted by an allotment of £100, from the Government Publication Grant administered by the Royal Society, towards the issue of the monograph on corallian ammonites. Other donations mentioned in the report include sums of money received from the Colston Research Fund of the University of Bristol and from Miss Mary S. Johnston. Monographs which are also in progress include Pleistocene Mammalia (Prof. S. H. Reynolds), Cretaceous Belemnites (Prof. H. H. Swinnerton), Gault Ammonoidea (Dr. L. F. Spath), Great Oolite Brachiopoda (Dr. Helen Muir-Wood), Dendroid Graptolites (Dr. O. M. B. Bulman) and Palaeozoic Asterozoa (Dr. W. K. Spencer). The following officers were elected for the ensuing year: *President*, Sir A. Smith Woodward; *Treasurer*, W. E. F. Macmillan; *Secretary*, Dr. C. J. Stubblefield.

Mayan Chronology: New Evidence

A JOINT expedition of the Smithsonian Institution, Washington, and the National Geographic Society, which is engaged in the excavation of a site at Tres Zapotes, in the State of Vera Cruz, southern Mexico (according to a communication issued by Science Service, Washington), has discovered a date monument which, it is anticipated, will settle a much-debated question of the authentic age of the reputedly earliest known dated Mayan object, and at the same time determine how and when the ancient Maya first spread over Central America. The site at Tres Zapotes, it is to be noted, is at least one hundred miles west of what had hitherto been believed to be the Mayan zone. Reports of the early results of excavation indicate that the site at Tres Zapotes is early; but the dating of the recently discovered monument is in the so-called 'short' style, which has generally been regarded as a late invention. Apart from its intrinsic interest, the question whether this style of dating was or was not in use in the early period of Mayan civilization is of importance in its bearing on the age of the famous jade statuette of a priest now in the National Museum, Washington.

This statuette bears a dating equivalent, on the Spinden correlation, to May 16, 98 B.C., and if this be taken at its face value, the statuette is the oldest known dated Mayan object. The date, however, is written according to the 'short' system, and question, therefore, has been raised whether the dating is contemporary, or was added in a later period, or whether, indeed, the statuette itself may not be an archaistic piece. Dr. Matthew W. Stirling, who is in charge of the excavation, has summoned a conference of archaeologists to be held on the site, to discuss whether they confirm his conclusion that the newly discovered monument is 'early'.

Eoliths

A COMMUNICATION from Mr. A. S. Barnes traverses the arguments put forward by Mr. J. Reid Moir for the human origin of the pre-Crag implement (see NATURE of January 28, p. 151) and deals *seriatim* with the characters upon which he relies. The problem of the differences between natural and human flaking is discussed by Mr. Barnes at length in the current issue of the *American Anthropologist* (41, 1, 1939, p. 99). He there maintains that the arguments for the human origin of pre-Crag implements are for the most part purely subjective, while it has been shown that purely natural forces are able to produce flaking similar to that on eoliths, and further, that the flaking on eoliths differs from that on human work. Although attempts have been made to formulate objective differences between the flake detached by man and those detached by natural agencies, such as 'resolved flakes' and flakes with certain other characteristics, these effects, Mr. Barnes holds, are found on flake fractures by fortuitous pressure as well as by man. After recapitulating the factors operating in natural and artificial fracture, Mr. Barnes goes on to suggest that a criterion of human workmanship, readily measurable and common to both classes of flaking, natural and artificial, is to be found in the angle platform-scar, which he defines as the dihedral scar formed by the intersection of the surface on which the blow has been struck, or pressure applied, and the surface of the scar left by the flake removed. As the result of an investigation of a large number of specimens by this method it has been found that an industry, or supposed industry, may be regarded as of human origin if not more than 25 per cent of the angles platform-scar are obtuse, that is, 90° and over. None of the eoliths examined by Mr. Barnes complies with this criterion, and, he maintains, cannot therefore be considered to be of human origin.

Encouraging Inventions

THE Paris International Trade Fair will be held during May 13-29. An interesting feature is the Inventions Competition (Concours d'Inventions), which is open and free to every inventor. An invention of any type may be entered. It may take the form of a new apparatus or device or it may be an improvement which can be incorporated in existing machinery or material. There is a strict