

million acres, or about 7 per cent of the former area of the country, is now about to be advanced a further stage towards completion. It is announced from The Hague that a sum of two million florins (about £154,000) has just been voted in the national budget for continuing the work of reclaiming the Zuider Zee, and it is likely that additional grants will follow shortly. The scheme was described in detail in an article which appeared in the issue of *NATURE* of September 21, 1929 (p. 446), at which date the first section, the North-west Polder of 50,000 acres, was at the point of complete enclosure. This polder was pumped clear of water in the following year, and it has since been brought into cultivation with satisfactory results. It is now intended to proceed with the reclamation of the second section, the North-east Polder, containing 117,000 acres. The cost is estimated at about £9,600,000 and the work will take about five years, providing work for about 5,500 men. Another ten years will be required to bring the salt-saturated soil into a completely effective state of productivity. The outer dyke, or embankment, enclosing the polder, starts from Lemmer in Friesland and follows a widely sweeping curve, first westerly, then southerly and finally easterly to a point on the coast-line north of Kampen. It will be 35 miles long, and for a great part of that distance will run parallel to a new canal. The reclaimed area will lie at two different levels, one about 13 feet and the other about 18 feet below water-level at Amsterdam, and three large pumping stations are to be provided to deal with the fresh-water drainage after completion.

Oldbury Hill, Ightham

An attempt to save Oldbury Hill, Ightham, from development for building purposes, is one which has a strong claim on the practical support of all archaeologists. This Kentish woodland plateau, lying between Sevenoaks and Ightham, is for British archaeology historic ground. At its summit is a prehistoric fortress, which is dated at about 200 B.C.; but its chief interest lies in its evidence of prehistoric man of a far earlier period. It is a part of the country over which Benjamin Harrison of Ightham, the apostle of the eolith, had his hunting ground; and through him it is linked with the great names in the study of British archaeology—Sir Joseph Prestwich, Sir John Evans, Lord Avebury, and many others. The fortress itself is scheduled for protection under the Office of Works, and in the event of building development, provision for access will have to be made in the inevitable encroachment; but the character of the site with its associations and its wide views over pastoral lands, which preserve the meaning and purpose of its fortification, will be irretrievably lost. The extent of the estate now offered for sale is about 157 acres, and the owner, who is not in a position to present the site to the public, has fixed at the lowest possible figure the price at which he would be prepared to effect a transfer to the National Trust. This body, however, has no funds with which to purchase; but an effort is being made, up to the present with indifferent

success, to organise a local fund. The importance to science of the high terrace gravels in which the evidence has been found for what is claimed to be the earliest traces of man's handiwork is obvious; the fact that that evidence has not been accepted universally makes it all the more important that such a site as Oldbury Hill should be preserved for the inspection and investigation of later generations.

History of the English Parliament

It is announced that H.M. Stationery Office will publish at an early date a volume, the first to be issued, of the "History of Parliament", which has been in course of preparation for some time under the supervision of a committee presided over by the Marquess of Salisbury. This undertaking, which will cover the whole period of parliamentary government from its inception in 1264 up to 1918, is an outcome of the report of a committee which was appointed in 1929 with Colonel J. Wedgwood as its chairman, to examine the material available for a record of the personnel and politics of the members of the House of Commons. A joint meeting of both Houses decided that the scope of the work should be extended so as to make it as complete a record as possible of "the people in Parliament—their ideas, standing, and politics—and to trace the gradual growth of Parliamentary representation and government". The work will fall into seventeen or eighteen periods, the material for each being grouped into two or three volumes. This material will comprise biographies of members of the Commons, complete lists of the members of both Houses with identifications, a preface to each Parliament with a commentary on its composition and the work done, and conclusions, appendixes, documents, etc. It is expected that the "History" will consist of some forty volumes, and that it will be completed in about thirty years; but as the price—possibly not more than £2 2s. per volume—will cover cost of printing and publication only, the rate of production will depend upon the funds available for the collection and preparation of the material. For the first volume to be issued, covering the period 1439-1509, Colonel Wedgwood, it is understood, has been largely responsible. Subscribers to the whole work will be charged three-quarters of the published price, a first payment of £10 being required with the undertaking to subscribe, against which the cost will be charged as each volume is issued.

Higher Paraffins as Liquid Fuel

HIGHER paraffins such as butane are easily liquefied at air temperature, and give a concentrated and easily vaporised liquid fuel—the most concentrated fuel commercially available having a heating value of 21,000 B.T.U. per lb. In several countries this product has been recovered from natural sources or oil refineries, and distributed in cylinders. In the United States this 'bottled gas' has become extensively used in rural areas, and the development of coal hydrogenation in England has led to its being marketed now under the name of 'Calorgas'.

H. Pickering recently described its properties before the Institute of Fuel, and there is little doubt that the gas, which is practically free from sulphur, will find many applications where a public gas supply is not available. The scope will be more limited under British conditions owing to the wide dispersion of gas mains and the low price of public supplies per therm. On the figures given, the price of the unit of heat in Calorgas is 29d. per therm. In the compressed gas trade, the cost of cylinders and distribution usually form the main item, and so it seems that the use of 'bottled gas' will depend on the extent to which those charges can be lowered by developing the market.

Electrical Measurements in the Eighteenth Century

IN the *Annals of Science*, 1, No. 1, January 1936, Mr. W. Cameron Walker, of Minchenden School, London, gives an interesting historical account of the detection and estimation of electric charges in the eighteenth century. Perhaps in no other branch of science could he have found a better illustration that progress in science is conditioned by the invention and improvement of instruments. Up to the time of Volta, Bennet's familiar gold leaf electroscope was the most sensitive detector of electricity. Its invention marks the end of a period of evolution beginning with the time when the experimenter obtained electrical charges by simply rubbing pieces of amber, glass or sulphur on his coat. Boyle and Newton had in turn extended the observations of Gilbert concerning the attractive powers of electrified bodies, while von Guericke came very near to anticipating Du Fay in the recognition of two opposite states of electricity. But to Hauksbee, with whom the story of the eighteenth century begins, belongs the credit of the first systematic investigation of 'electric effluvia'. He was surprised to notice that threads enclosed in an 'uncharged' globe of glass were immediately affected by the approach of a rubbed rod of sealing wax. But he makes no reference to the repulsion of the threads. For this new step we have to wait until twenty years later. In 1767, when describing a Leyden jar, Priestley writes that what electricians chiefly want to know is 'how high a phial is charged'. Methods of measuring this were soon described by Lane and Henly. Then we come to the wonderfully accurate experiments of Cavendish and the evolution of the condensing electrometer by Volta—the most skilful worker in this field. We think Mr. Walker has done well to direct attention to the valuable work done by eighteenth century electricians.

Preservation of Cornish Engines

It is with pleasure we learn that the Cornish Engines Preservation Committee has been successful in acquiring the early winding engine at Levant Mine in Cornwall, and in leasing for a small acknowledgment rent the engine house. Levant and the adjoining Botallack mine were famous for their richness in copper and tin, and for their deep workings, which extended far out under the Atlantic Ocean. The engine

at Levant was designed by Francis Michell, and was probably built at the Copperhouse Foundry, Hayle, about one hundred and ten years ago. It is of the beam type with parallel motion, and has a cylinder 24 in. in diameter with a stroke of 4 ft. The total sum raised for its preservation was £130, the greater part of which, says Mr. W. T. Hooper, the honorary secretary of the fund, came from beyond the Tamar. Donations were received from the Institutions of Civil and Mechanical Engineers and the Newcomen Society, and from individuals in India, China, Australia and America. The Committee has in view the preservation of some of the larger pumping engines, and arrangements are now being made to complete the model of the 90 in. pumping engine at East Pool Mine, which was begun by the late Mr. Oswald Swete of Truro.

National Academy of the Lincei

At a meeting of the National Academy of Lincei held in Rome on June 2, 1935, in the presence of H.M. the King of Italy, an account of which has just been issued by the Academy, it was announced that the new statutory regulations of the Academy, which have received the royal sanction and the approval of the head of the Government, are now being put into operation. The most notable of these regulations, because it symbolises the strict adherence of the Academy to the Fascist regime, is that the nomination of the president and vice-president (still to be announced) and of the national members is made by royal decree proposed by the Duce. The following members have been nominated under the new statutes: L. Berzolari, U. Amaldi, A. Crocco, E. Soler, A. Alessio, E. Fermi, G. Vallauri, F. Giordani, R. Fabiani, G. Quagliariello, P. Rondoni, C. Formichi, G. Bertoni, C. M. de Vecchi, L. Federzoni, G. Volpe, P. S. Leicht, A. Torre, A. Carlini, P. Carabellese, G. Della Valle, A. Solmi, S. Riccobono, S. Romano and A. de Stefani. Among the chief awards announced are the following: Prizes presented by H.M. the King: the late Prof. G. Viale, University of Genoa, for his work on physiology and pathology, and A. Maiuri, for his contributions to archaeology; Cannizzaro Prize in chemistry, Prof. P. Karrer, University of Zurich, for his work in biochemistry; Santoro Prize: G. Fauser, for his scientific services to the nitrogen fixation industries. In his address to the Academy on "The Tradition of Rome in the Middle Ages", Pietro Fedele concluded by emphasising the glorious role of Fascist Rome as the true successor of the Rome of the Cæsars and of the Popes.

The Meaning of 'Survival'

IN the fourth Frederic W. H. Myers Memorial Lecture, which was given by Mr. Whately Carington on October 30, 1935, and is now published by the Society for Psychical Research, the speaker stressed the importance of language in any serious consideration of the problem of 'personal survival' after bodily death. He pointed out that one of the great difficulties of the subject lies in the incorrect use of terms, which, although they might mean something in connexion