logist Karl Ludwig. Basch is best known for his invention of a sphygmomanometer, by which he inaugurated the clinical measurement of the blood pressure. He also did valuable work on pulmonary œdema, cardiac dyspnœa and the innervation of the uterus. His death took place on April 25, 1905.

Local Government in Roman Britain

A DOCUMENT of importance in its bearing on the organization of local government in Roman Britain has been brought to light in the course of the fifth season's excavation on the site of the Roman town of Brough, which has just closed. The investigation of this site, which is situated on the north bank of the Humber, commanding the crossing of the river by the Lincoln-York road, is being carried out by the Brough Excavation Committee under the direction of Mr. Philip Corder and the Rev. T. Romans. The present season's work has been directed to laying bare one of the four towers of rectangular form, twenty-five feet wide by ten feet deep, which were added to the front wall of fortification, possibly early in the fourth century. The most important find of the season was an inscribed slab, 2 ft. 3 in. high by, originally, about four feet long (*The Times*, August 27). Mr. Eric Birley reports on the inscription that it commemorates the provision of a stage at his own expense by Marcus Ulpius Ianuarius, *Ædile* of the village of Petuaria, in honour of the Imperial family of Antoninus Pius (A.D. 138–161) and of the spirits of the deified emperors. This inscription confirms the name Petuaria, and is one of the few known instances of the epigraphic confirmation of Romano-British names.

FURTHER, and more important, the inscription affords evidence of a step in the development of the unit of local governments in Britain from the tribal area, here that of the Parisii, to the self-governing canton with its seat of government at the old tribal capital, or a newly erected town. Although such tribal cantons were known from inscriptions at Caerwent and Wroxeter, this is the first mention of a tribal magistrate in Britain. Furthermore, being denominated as the *Ædile* not of the tribal area, as in the previously known inscriptions, but of Petuaria itself, this indicates, in the interpretation of Mr. Birley, a further stage of development in which the central town with its college of four regular magistrates, two *duovirs* and two *Ædiles*, was gaining in importance at the expense of the tribal organization. This inscription is also the first epigraphic evidence of the practice in Britain of a magistrate conferring benefactions in return for the honour of election to office.

Arctic Weather Reports

ONLY forty-one years have passed since Nansen made his perilous and unsuccessful attempt to drift with the arctic ice from northern Siberia across the North Pole to the neighbourhood of Greenland, yet since July at least one London morning newspaper has been publishing daily a weather report from the region of the North Pole along with similar reports from New York and various Continental capitals. Such observations are not at present of great importance to weather forecasters, because the normal travel of weather systems generally tends to be circumpolar, and, moreover, the gap between the Pole and other arctic weather stations—even Spitsbergen—is a very wide one, so wide that it is impracticable to complete a system of isobars to cover the polar regions. But as a landmark in the gradual spreading of a network of observing stations over the whole world, this event is important. Owing to the drift of the ice, a permanent station at the North Pole is impracticable, but the Russian station from which the published observations have been received has apparently not drifted very far from the Pole yet. Its co-ordinates at the end of August were about lat. 87° N., long. 2° E. The reports include an observation of the direction of the wind, and owing to the fact that these are not made exactly at the Pole, the direction can be given in the ordinary manner. At the Pole itself, of course, all winds are from the south, and direction would presumably have to be given in terms of longitude instead of being referred to the points of the compass.

Problems of Conquering Everest

THE problem of reaching the summit of Mount Everest is discussed in a paper in the *Himalayan Journal*, 9, and takes the form of a memorandum prepared by the Eastern Section of the Himalayan Club, with some comments on the conclusions by Mr. E. Shipton. Two main suggestions are made in the light of past experience. The first is that expeditions have been foredoomed to failure because they have attempted to climb the north ridge too quickly. It is contended that men who have stood the strain of reaching the North Col cannot hope to do the remaining 6,300 feet in three days. The writers quote much evidence in favour of their statement, but Mr. Shipton is equally sure that above 23,000 feet a man deteriorates in muscle and energy quickly, and therefore delay at and above that height must be avoided. The second suggestion is that instead of trying in May and June when the effort is a race with the approaching monsoon, it would be better to make the attempt after the monsoon, in October or even in April. Days in October are certainly shorter than in May, but wind velocities so far as is known are slightly lower. Mr. Shipton admits that post-monsoon conditions should be studied, but prefers the pre-monsoon season. Major K. Mason points out that one obvious drawback to October is that it is a month of increasing wind, while May is a month of west winds decreasing owing to advancing monsoon currents.

The British Grid System

IN a paper on the British Grid system by Johnstone Wright, the engineer of the Central Electricity Board, presented to the Engineering Institute of Canada, at Montreal in June last, an interesting account is given of the development of the Grid system in

(*Continued on p.* 419)

Britain. He points out that the basic unit in British local administration is the parish, the zone of influence of a single place of worship in the Middle Ages. Rural districts, urban districts and boroughs have been built up by the aggregation of parishes, and national parliamentary representation is still organized on that fundamental unit. As a consequence, in spite of many reforms, there are still more than two thousand separate authorities responsible for local community organization. Early legislation favoured supply by a local council. This favoured the setting up of a large number of small generating stations. The work of Ferranti showed the possibilities of alternating current transmission; but the small areas resulting from the early legislation, the wide distribution of coal and its abundant supply did not give the incentive to A.C. supply that there was in other countries. In 1925, a Government committee was set up under the chairmanship of Lord Weir. The committee came to the conclusion that there was a wide difference between generation and distribution and that retail distribution was a local matter which might suitably be decentralized. The findings of this committee were the basis of the Electricity Act of 1926. A Central Electricity Board was formed to construct and operate a large number of high-tension transmission lines called a Grid. The board divided the network into nine schemes covering the whole of Great Britain except northern Scotland. Not only did the construction of the Grid have a beneficial effect upon national employment at a time of acute depression, but also the experience in high-voltage construction which it entailed has placed British manufacturers once more in the forefront of technical progress.

University's Care of Body and Mind

RENSSELAER POLYTECHNIC INSTITUTE, founded in 1824 at Troy, New York, claims to be the oldest institution of higher learning in any English-speaking country that has devoted itself continuously to instruction and research in science and engineering. In a recent bulletin, it directs attention to the very thorough provision it has made not merely for the technical efficiency of its graduates but also for ensuring the physical fitness and bodily vigour of its undergraduates and for developing in them a broad and balanced mental outlook. Applicants for admission are examined physically; and if corrective exercises seem advisable they are prescribed by the Department of Physical Education. Every undergraduate is required to take during the first year a comprehensive course in physical education, including personal hygiene, recreational games, gymnastics, swimming and athletics. Medical advice and hospital care in case of need have been made available for all students. A member of the staff of a neighbouring hospital is in attendance daily for an hour and a half in the gymnasium for consultation. In the first year every undergraduate has to qualify in English, drawing, history, graphics, mathematics, physics and chemistry, and has to prepare a thesis during the summer vacation. The English course covers the material and methods of composition as illustrated by the successive steps in the preparation of a comprehensive article on a subject of immediate interest, the preparation and delivery of incidental speeches and a survey of contemporary ideas and current usages. Except in the case of students of architecture, all undergraduates also take a brief course introductory to professional study, designed to acquaint them with the materials and methods of study in different fields, to introduce them to the members of the faculty whom they will eventually meet in their work, and to indicate the nature of the openings which will be available to them upon graduation.

Natural History and Science in South Australia

THE presidential address before the Royal Society of South Australia, delivered by Dr. C. T. Madigan last year, is devoted to the history of the hundred years of science in South Australia as appropriate to this centenary year (*Trans. Proc. Roy. Soc. S. Australia*, **60**, Dec. 1936). He points out that the Royal Society is really older than the State itself, for though it has an unbroken existence only since 1853, its origin can be traced back to the South Australian Literary and Scientific Association initiated among the founders of the Colony in London in 1834. The active functioning of the Royal Society dates from the inspiring presidency of Prof. Ralph Tate; in the twenty-five years of his association with the Society between 1876 and 1901, it became the established medium for publication of original scientific contributions. The nature of this published work is summarized by Prof. Harvey Johnston for general zoology, by Sir Douglas Mawson on geology, by Prof. J. G. Wood and Mr. J. M. Black on botany, by Dr. James Davidson on entomology, and Dr. T. D. Campbell on anthropology. Naturally these descriptive and natural history subjects, so important in a young colony, bulk most largely in this first century, and Prof. R. W. Chapman's report, whilst reminding us that many of Sir William Bragg's first publications in physics appeared in the *Transactions* of the Society, makes it most abundantly clear why this state of affairs prevailed. Before the Society or its predecessor, the Adelaide Philosophical Society, could spend its energies upon the publication of natural history, it had to pass through a phase in which it was the public forum for the advocacy of any and every cause associated with general education. In those days, even so late as 1868, a speaker urging the establishment of free schools, could quote a South Australian parent in this strain, "I have ten children who can't read or write. I can't read or write myself, why should they?"

Zoology of Iceland

THE study of the zoology of Iceland has lagged behind the investigation of its geology and geography, but a new work in five volumes on the "Zoology of Iceland" should form a worthy contribution to the knowledge of a fauna of unusual interest from several points of view (Copenhagen and Reykjavik: Levin and Nunksgaard). The work will be carried out by specialists, and each part will appear as it is