

NEWS and VIEWS

Central Advisory Water Committee

THE Minister of Health, in exercise of the powers conferred on him by Section 2 of the Water Act, 1945, has appointed the following to constitute the Central Advisory Water Committee: Mr. Henry Berry, M.P., chairman, Metropolitan Water Board; Col. F. Hibbert, M.P., chief engineer, Liverpool Corporation Waterworks; Mr. Philip Porteous, managing director, Cambridge University and Town Waterworks Company; Alderman N. F. S. Winter, Halifax Town Council; Sir Wynne Cemlyn-Jones, Anglesey County Council; Mr. J. Chaston, town clerk, Kettering; Sir Robert Doncaster, representing the Rural District Councils Association; Mr. J. E. James, Imperial Chemical Industries, Ltd.; Mr. H. Johnson, secretary, Bleachers Association, Ltd.; Mr. S. R. Hobday, director and general manager, Lee Conservancy Board; Mr. M. Kissane, secretary, Manchester Ship Canal Company; Capt. Jocelyn Bray, chairman, Thames Conservancy Board; Mr. G. A. Worth, Soham Internal Drainage Board; Sir Cecil Newman, acting chairman, National Association of Fishery Boards; Mr. J. N. McLean, vice-president, National Farmers' Union; Sir Arthur Heneage; Mrs. E. M. Braddock, M.P.; Mr. D. McAdam Eccles, M.P.; Lord Rae; and Lord Walkden.

The Committee's terms of reference are to advise the Minister of Health, or any other Minister concerned, upon matters connected with the conservation and use of water resources; on the amendment of enactments which relate to, or in any way affect, the conservation or use of water resources or the provision of water supplies; and on any question that may be referred to the Committee by the Minister in connexion with the operation, or proposed amendment, of relevant enactments. It will also consider the operation of any such enactments, and, where it thinks fit, make recommendations for their extension or modification. Any communication concerning the work of the Committee should be addressed to the secretary, Mr. M. R. P. Gregson, at the Ministry of Health.

Jet-Propelled Tailless Aircraft

FOLLOWING the tailless glider produced by Messrs. Armstrong Whitworth for experimental work leading to high-speed stratosphere flight, Messrs. De Havilland have now completed a similar aircraft, powered with a "Goblin" gas turbine developing about 12,000 h.p. at the speeds of flight attained. The "Goblin" turbo-jet unit is also Messrs. De Havilland's own design. It is the only jet-propelled aircraft with pronounced swept-back wings that has flown up to the present. It is anticipated that speeds up to 675 miles per hour may be reached. The machine is a logical development of the De Havilland jet-propelled "Vampire", which is now in production and supplied to the fighting services.

Mr. Wilmot, Minister of Supply, at a recent Press conference, announced that there are seven types of civil aircraft now being produced in Great Britain for gas turbine propulsion. These correspond to the types suggested to Parliament by the Brabazon Committee. The designing and constructing firms are Messrs. Bristol, Airspeed, Vickers, Handley Page, A. V. Roe, De Havilland and Miles. There are also many R.A.F. and F.A.A. equipment types in the

hands of these and other firms. Mr. E. F. Relf, giving the Wilbur Wright Lecture before the Royal Aeronautical Society, said that steps are being taken to try out a new type of wing suitable for this class of aircraft. The wing shape is based upon the idea of deliberately creating a sudden discontinuity of velocity and pressure at suitable sites on the wing surface, and introducing an artificially created suction at these points. This may help in the solution of the problem of overcoming the 'shock stall' at very high speeds.

Science in Post-Primary Education

A REPORT with this title is the second part of the report published as an interim report in June 1944, by the Association of Women Science Teachers. Whereas the interim report was concerned with post-primary science from eleven to sixteen years, the second report completes the work by consideration of sixth-form science, part-time education in science, the training of teachers, administrative problems and sixteen special topics of a utilitarian nature and of special value and interest to those planning laboratories or running a science department. These two reports, published by John Murray at 1s. 3d. and 2s. net each, should be in the hands of all those whose minds are awake to the vast possibilities of science-teaching within the new Education Act. While stressing the need for less specialization in sixth-form work, the second report considers separately the general scientific education of all sixth-form pupils, the science specialists and those who may best be described as the general group of pupils in the sixth form. It is urged that all sixth-form pupils should meet together once a week to study current affairs, which includes topics of scientific interest as well as those of an economic and political aspect. Arts students will need a special science course of two periods a week, the counterpart of the special English course for the scientists. A suggested timetable for these various groups is given. The work provided in the county colleges, on a basis of one day a week attendance, should cater for pupils with varied aptitudes and attainments. A tentative scheme which recognizes the need for such a variety of science courses is given: flexibility is the keynote. The chapter on the training of teachers urges that good general science courses should be provided for suitable students in the training colleges and that sufficient time should be allowed in teaching practice to acquire a reasonable amount of technical skill. Graduates trained in the university training departments need opportunities for first-hand study of the children they are going to teach.

There are brief but useful references to sizes of classes in a laboratory, to laboratory assistance and to the necessary free time of science teachers. The appendixes should guide many when faced with the problems of planning of a general science syllabus, of equipping a general science laboratory down to the smallest detail, of keeping an eye on the administrators and builders. They should assist the young teacher with concrete help, while keeping the ideals of social general science before him; they should provide a concise reference of many topics to a busy head of department. The chapters on laboratories and adjuncts, on essential equipment, on visual aids, fire precautions and first aid are extremely valuable. The Association of Women Science Teachers has done a good piece of work in publishing so much useful material in convenient form. It is helpful to

know that a further report, adapting the syllabuses in greater detail for use in secondary modern schools of varied types of area, is already in production.

Fossil Fauna in Norfolk

DISCOVERIES of no little interest to palaeontologists and archaeologists are reported from Norfolk. During the past winter and early spring, the effects of marine erosion on the cliffs around the coast have been severe, causing much local uneasiness. In compensation, as a result of this tidal action, early quaternary deposits at the base of the cliffs and on the foreshore have been laid bare to an exceptional degree. At Mundesley, in particular, the Cromer Forest Bed is exposed more extensively than has occurred for a very long period and a number of discoveries have followed. Early in May, a fossil bone protruding at the base of the cliff was observed by Mr. E. A. Livermore of Mundesley. On extraction, this proved to be the major portion, a little more than three feet in length, of an elephant's tusk. It has since been identified as belonging to the extinct straight-tusked elephant, *Elephas antiquus*. A few days later, Mr. Livermore also recovered from close to the position of his first find part of a tooth, about six inches in length, of an elephant of the same species. Further discoveries were two fragments of bone, the tips of an elephant's femur and tibia respectively. A remarkable tooth, which belongs to *E. meridionalis*, also from the Cromer Forest bed at Mundesley, has been found by Mr. A. Savin of Cromer. It is complete, and weighs twenty-five pounds. With one exception, a tooth of twenty-six pounds, it is said to be the largest *meridionalis* tooth recorded.

The estuarine deposits of the Cromer Forest bed series at Mundesley, it will be remembered, have yielded in the past a rich fossil mammalian fauna, of which a large proportion, more than 70 per cent, belongs to extinct species. They include, in addition to the two elephants mentioned above, *Hyæna striata*, *Rhinoceros etruscus*, the sabre-toothed tiger (*Machærodus latidens*), which is also recorded from Kent's Cavern, Torquay, and the hippopotamus, which appears here for the first time. As a whole, the mammalian fauna is from a warm-temperate climate, whereas the marine is regarded as indigenous and on the whole is arctic. In relation to man, the Cromer Forest Bed equates with the developed Abbevillian (Chellean) industry.

Institute of Fuel

THOSE who can look back to the beginning of the century cannot fail to be impressed by the changes which have taken place in connexion with the supply of fuel. The excellent—and what now appears to be cheap—coal was abundant: cost of fuel might appear to be a negligible factor in the production of manufactured products. Advocates of fuel saving or smoke abatement were voices crying in the wilderness: their messages were of no concern to the State and even unwelcome to the fuel industries. Two great wars—especially the last one—have produced the great change, revealed nowhere more clearly than in the development of the Institute of Fuel. On April 17, Dr. E. W. Smith, in his presidential address, said that the Institute, which in 1939 after a modest life of twelve years had gathered about one thousand members, had by 1946 reached in numbers about two thousand six hundred. This is a measure of the growing interest by the technologists themselves. It is a measure of the rising importance

of fuel conservation for a long time to come. The Institute is devoting much attention to the spread of better understanding about fuel and its utilisation. Dr. Smith said that this should begin with children, who should be taught early at school the elements of the science of combustion, so that they are already 'fuel conscious' before embarking on the business of life.

The Institute of Fuel hopes in the near future to reach the dignity of a chartered body. In addition to the publication of an important technical journal, the Institute has started a scheme to encourage the public education in fuel technology in all branches—from the operative to the research worker. In this, the Institute is in co-operation with the Ministry of Fuel and Power, and, on the examination side, with the City and Guilds Institute. All this activity can be understood if it be remembered that, in future, domestic arrangements must become less primitive and more efficient. Recognition of the essential worth of fuel as a national possession must assert an influence in all walks of life.

Association of Special Libraries and Information Bureaux: Northern Branch

AT the conference in Manchester on May 8 arranged by the Association of Special Libraries and Information Bureaux to discuss industrial information services, a statement regarding the proposed formation of a Northern Branch of the Association was made by Mr. R. Brightman, librarian, Imperial Chemical Industries, Ltd., Dyestuffs Division, and chairman of the provisional committee formed early in the year for that purpose. The desire of many members of the Association for regular meetings in the northern area, as well as for a conference in that area, has been frequently expressed at recent annual conferences; and in view of the fact that a heavy proportion of the industrial membership of the Association is concentrated in an area lying north and west of a line drawn roughly from the Humber through Nottingham, Leicester, Birmingham to Bristol, the Committee has in mind something much wider than the mere revival of the Lancashire and Cheshire Branch which functioned during the period 1931–36. The committee contemplates, instead of a series of meetings in any one town, a programme of meetings in different centres, preferably not more than a couple of meetings in the year, which might be arranged in such places as Manchester, Liverpool, Harrogate, Keighley, Nottingham, etc., and cover subjects meeting the needs of the works' librarian in particular. It is hoped that the Branch will keep in close touch with such developments as the lectures on classification and cataloguing arranged at the College of Technology, Manchester, by the North-Western Branch of the Library Association, and other developments which may provide training for those entering on a career of librarianship in industry.

A meeting to constitute such a Northern Branch will be held at the Manchester Central Library, Peter Square, on June 27 at 3 p.m. Mr. R. Brightman will preside, and after the formal business and election of a committee, Miss M. Exley, librarian of the Commercial, Science and Technological Libraries, Sheffield, will speak on "Co-operation between Libraries in the Northern Region". The provisional committee, in retiring, is suggesting a further meeting of the Branch at Liverpool in the autumn and a one-day conference at Sheffield in the spring of 1947. The honorary secretary is Miss L. Wolff, Hexagon House, Blackley, Manchester.