

Instruments Group should occupy a prominent position near the main entrance to the Fair. The exhibits of the various firms in this section are placed so compactly together that a visual impression is conveyed of the co-operation and joint effort which is to be found among the members of the industry. The instruments shown are mostly optical in character, and one is reminded again of the large part played in scientific and industrial life by the products of the optical firms. Besides the normal instruments for laboratory equipment, special instruments are shown for use in aeronautics, astronomy and meteorology, together with those specially adapted to nautical and surveying requirements. One is impressed by the success which has been attained in so many of the instruments in combining the robustness required for industrial use with the necessary delicacy of movement.

Few things have been more striking of recent years than the development of long-distance telegraphy. It is but a short time ago that the first photographs were telegraphed from Australia to England, and quite recently a cinematograph film was exhibited in England showing events which had taken place but a few hours earlier in Australia. The exhibit of Cable and Wireless Ltd. is, on this account, of special interest. The modern system of long-distance telegraphy is admirably shown at its stand. The types of apparatus used for this work are presented in actual operation, and a study of the receiving and transmission units, magnifying relays, distortion removers and regenerators gives the visitor a clear idea of the inventive research which has enabled long-distance telegraphy to become part of his daily life. Realism is added to the demonstration by the fact that a written telegram, handed in at one end of the stand, is delivered as an automatically typed message at the other end after having passed through the complete system.

The chemical industry provides another example of the co-operation which may exist between firms in the same industry to their mutual benefit. Messrs. Hopkin and Williams and British Drug Houses Ltd. have combined their knowledge and experience to further the production of chemical reagents of an exceptionally high standard of purity, and these reagents are being exhibited by the firms. The very large field covered by the activities of Imperial Chemical Industries Ltd. is well illustrated by the fact that this firm has thought it worth while to devote a large portion of its space at the Fair, not to the display of its products, but to a presentation of its sales machinery. By means of interesting maps, the way in which chemical products enter into almost every phase of industry throughout Great Britain is clearly demonstrated. The same firm is making a special point of the hydrocyanic acid method of fumigation, especially for the cleansing of vermin-infested houses. Great success is claimed for this method of fumigation, and specimens of the fumigant and of its prospective victims are shown. The same fumigant has a variety of other and more pleasant uses, the removal of fruit-damaging insect pests from orange groves being specially emphasised as being of interest to overseas visitors.

Of the other industries represented at the Fair at Olympia, no section is more attractive, and certainly none more colourful, than that of the glass and pottery trades. A more perfect blending of utility and beauty can scarcely be imagined. It is perhaps fitting that the products of possibly the most ancient

craft represented at the Fair should appear so near to perfection. The beauty of the exhibits is enhanced by the excellent lighting, and the stands furnish an example of the use of modern lighting effects to improve the display of goods. Quite near to the glass and pottery section, on the floor above, is a large area devoted to plastics, and it is not uninteresting to compare the products of this very modern industry with those of the very ancient one mentioned above. The increasing use which is being made of plastic materials is reflected in the very large increase of space occupied by the plastic group. In this industry the gap between laboratory experiment and workshop practice has been most effectively and rapidly bridged.

The fact that in London alone more than fifteen hundred firms are exhibiting almost every variety of manufactured articles makes it obviously impossible in a limited space adequately to describe such a Fair. In addition to these firms, one hundred and thirty-four inventors are displaying for the first time to the purchasing public the results of their ingenuity, which range from rubber contrivances for the prevention of housemaid's knee to a mechanical device for 'breaking-in' new pipes.

At the White City every phase of textile manufacture is represented; whilst the furniture section at the same place presents a wide field of interest to those concerned with the evolution and modern developments of furniture. The Fair remains open until March 1. The Engineering and Hardware Section opens in Birmingham on May 20.

University and Educational Intelligence

CAMBRIDGE.—At the Congregation of the Regent House a grace will be submitted appointing Prof. G. H. F. Nuttall, Magdalene College, emeritus professor of biology, Prof. E. D. Adrian, Trinity College, Prof. R. C. Punnett, Gonville and Caius College, Balfour professor of genetics and Mr. C. Forster-Cooper, Trinity Hall, University reader in vertebrate zoology, delegates from the University to the centenary of the National Museum of Natural History in Paris next June.

At Newnham College the Henry Sidgwick Memorial Lecture will be delivered on March 9 in the College Hall at 5 p.m. by Sir John Russell, director of the Rothamsted Experimental Station. The subject of the lecture is "The Impact of Science on the National Life".

THE thirteenth Unity History School will be held in Rome on April 15-22. The subject of the meeting will be "Science in the Modern World". On April 15, the inaugural lecture entitled "Science and Philosophy" will be delivered by Prof. F. Enriques, president of the School of the History of Science, University of Rome. Other lectures will be delivered by Mr. F. S. Marvin, director of the Unity History Schools, Prof. H. Dingle, Dr. W. A. Parr, Prof. E. Radl, Dr. C. H. Desch, Prof. C. Formichi, Dr. G. Sarton, and M. Lheritier. Several discussions have also been arranged. Further information can be obtained from Mrs. K. E. Innes, 29 High Oaks Road, Welwyn Garden City, Herts.

VOCATIONAL guidance service finds a valuable auxiliary in the *Journal of Careers* (monthly, 1s.). The December issue contains "The Prospect in

Surgery" by Sir Holburt Waring, a sequel to an article in the preceding month by Sir Humphry Rolleston on general medical practice and the main branches of specialisation. Sir Holburt gives expression to a view which, he says, will be considered in many quarters as revolutionary, namely, that the methods which are beginning to be practised in industry—selection on account of special aptitude, mentality and physical characteristics, might well be applied in surgery and also in the various branches of medicine. Considerable space is devoted to civil aviation: in addition to the first of a series of articles on the opportunities of new careers which the development of flying will offer, there is a summary of an address by Prof. Sutton Pippard to the Royal Aeronautical Society on the training of an aeronautical engineer. Veterinary surgery as a profession for women is discussed by Beatrice Lock, this being the second of a series of articles on "Women in the Professions". Another useful series deals with the prospect for public school and secondary schoolboys in the iron and steel industry, the article in the December issue being on technical and commercial posts. Lieut.-Col. Levey, managing director of the West African Information Bureau, writes on the prospects for British commerce in West Africa. The *Journal* has not failed to direct attention to the complaint, voiced in the presidential address to the Association of Special Libraries and Information Bureaux by Sir Richard Gregory, of the inadequacy of the arrangements made for the treatment of scientific news in daily and weekly newspapers. New fields of work should be opened up for science graduates with journalistic ability.

Science News a Century Ago

Telford and the Institution of Civil Engineers

At a special meeting of the council of the Institution of Civil Engineers held on February 23, 1835, the following extract from the will of Telford was read: "To the president for the time being of the Civil Engineer Institution in trust, the interest to be expended in annual premiums under the direction of the Council, 2,000£."

"All my scientific books, book cases, prints and such drawings, as my executors shall consider suitable, are to be delivered to the Civil Engineer Institution for its use and benefit, on condition, that all those articles, as well as the books, prints and drawings, shall, in case of the said Institution being discontinued, be delivered to the Royal Society, Edinburgh, for its use."

The council resolved that the premiums should be both of an honorary and pecuniary nature, and that the honorary premiums should consist of gold, silver and bronze medals, and that in the distribution of premiums no distinction should be made between natives and foreigners.

The Zoological Society

On February 24, 1835, Owen read a paper to the Zoological Society entitled "Description of a Microscopic *Entozoon* infesting the Muscles of the Human Body". He said that upwards of fifteen different kinds of internal parasites were already known to infest the human body, but none had been found of so minute a size, or existing in such astonishing

numbers, as the species he described. The muscles of bodies dissected at St. Bartholomew's Hospital had been more than once noticed by Mr. Wormald, the demonstrator of anatomy, to be beset with minute white specks; and this appearance having again been remarked in the body of an Italian, aged forty-five years, by Mr. Paget, a student at the hospital, who suspected it to be produced by minute Entozoa, the suspicion was found to be correct, and Owen had been furnished with portions of the muscles for examination. An account of his observations was published in the *Philosophical Magazine* of June 1835.

University of London

The annual general meeting of the proprietors of the University of London was held on February 25, 1835. The report expressed satisfaction at the prospects of the institution, and stated that the number of students in the Faculty of the Arts and Law during the year had increased from 122 to 137, the number of students in Medicine from 347 to 371. The number of pupils in the junior school had increased from 284 to 303. The total receipts for 1833 had been £9,890 3s. 0d. and for 1834 £9,971 16s. 8d.

The Natural History of Wasps

A paper on the natural history of wasps was read on February 27, 1835, by the Rev. E. T. Bigge, of Merton College, to the Ashmolean Society of Oxford. The object of the paper, said the author, was to correct the mistakes into which several writers had fallen, and to state the results of his own observation on two species, *Vespa vulgaris* and *Vespa Britannica*. The former, he said, was common in all parts of the kingdom; the latter, though occasionally met with in the southern counties of England, was abundant in the northern districts, and in Scotland, as well as in the northern parts of Europe. Having directed attention to the points of difference in the two species, the author went on to state some interesting facts relating to both species. Societies of wasps, as of bees, consist of three different classes of inhabitants, males, females and neuters. The neuters, or imperfectly developed females, are the common wasps which infest our houses and gardens, and form the majority of the colony. The author had never seen a nest of either species in which he had not observed, after 9 o'clock, in the summer months, a sentinel watching the entrance to the nest. A ground nest has two apertures, one for entry and one for exit. It is curious that if one stops up a wasps' nest, the returning wasps will not sting the aggressor, while those which escape from the inside will attack him instantly.

Weather in the United States

In the *Mechanics' Magazine* of February 28, 1835, it was stated that: "The winter in America has been one of almost unprecedented severity. In January the thermometer sunk at New York to 5° below zero—at Baltimore to 10°—at Washington to 16°—at Albany to 32°—at Montreal to 35° and at New Lebanon in Columbia county to below 40°, the mercury in the bulb being 'congealed and for some time immovable'. The harbours of Portland, Newburyport, Boston, New Bedford, New Haven, Philadelphia and Baltimore have all been frozen over; some of them hard enough to bear carriages."