had been unrecognised. As a result of his inspection, choice specimens from private collections in several instances have now been placed in local museums. Among the rarer and more unexpected of his finds are examples of Buddhist sculpture from Java at Edinburgh, Dublin, Elgin and Hawick, fine paintings of the Rajput, Kangra, and Moghul Schools at Halifax, Manchester and Edinburgh, and sculptures of the great Gandhara period and South Indian bronzes in many collections. Dr. Sita Ram, it is stated, is confident that without unduly depleting local collections, it is possible to get together ample material from Java and India now in the British Isles to provide for the central museum of Asiatic art and antiquities, which those who are interested in British national collections are convinced is an urgent need of the present time.

Calendar Reform

THE International 'Fixed Calendar' League, 1 Regent Street, London, S.W.1, has issued a topical pamphlet entitled "How to Fix Easter and Establish Calendar Reform". The arguments for and against calendar reform bear some resemblance to the movement in favour of a 24-hour time system, which met with little encouragement from the public when it was given a trial by the B.B.C. last year. There is little solid, compelling argument in favour of either, though it would be a convenience in the long run to rationalise our methods of reckoning the hours of the clock and the days of the year. It is claimed that the fixation of Easter would result in great public convenience, and that the equalisation of the number of days in each month, and in each quarter, would simplify statistics based on monthly and quarterly returns. There are two rival schemes for calendar reform. In the first there are twelve months, each quarter containing 31 + 30 + 30 days, and in the second thirteen months, each of 28 days. The stabilisation of the week and the month is to be obtained in either scheme by counting the 365th day in an ordinary year as Year Day, and by counting the 366th day in a Leap Year as Leap Day, neither day having a place in any week. The International Fixed Calendar League casts a shadow on the respectability and balance of its arguments by exhibiting an intemperate preference for the 13-month plan as compared with the 12-month plan; it is claimed, for example, that the 13-month plan "would help research in science, health, etc." but that the 12-month plan would not! It is extremely interesting to compare Pamphlet *E* for general consumption, with Leaflet *L*, "Fixed Calendar Benefits for Labour" (which was not sent to NATURE Office), in which the League indulges in an attempt to enlist the sympathies of the Labour movement in its scheme for calendar reform.

Geographical Distribution of Unemployment

IN the issue of *Planning* dated March 26 (16 Queen Anne's Gate, London, S.W.1) some important facts relating to the geographical distribution of unemployment are emphasised with the aid of a diagram, wherein Great Britain is divided into two halves. The first half, consisting of the Midlands, South and South-West England, contains 6,319,000 insured persons between the ages of 16 and 64 years, while the second half, consisting of North England, Scotland and Wales, contains almost the same number, namely, 6,221,000. Yet the first half has less than 650,000 claimants to unemployment benefit and assistance, while the second half has nearly 1,300,000, or more than two thirds of the total registered unemployed. If the comparison is confined to claimants for transitional payments and allowances—that is, to the able-bodied unemployed coming under the Unemployment Assistance Board—the contrast is far more striking. Less than a quarter of these cases occur in the first or more prosperous half and more than three quarters in the depressed half. Moreover, as there are large areas which are fairly prosperous even in the second half, the real concentration of the problem of able-bodied unemployment for long spells is far narrower than regional figures show. Another striking fact brought out is the relative insignificance of protracted unemployment among women workers.

Printing by Wireless

ACCORDING to a report in *The Times* of April 20, a new instrument for wireless telegraphy, which will either handle the morse code or transmit and receive messages in plain letters, has recently been produced by Messrs. Siemens and Halske of Germany, and is being demonstrated at the London offices of Messrs. Siemens-Schuckert. The instrument can be operated by any ordinary wireless set with an output of one or two watts, the frequency of the output signal being adjusted to be 900 cycles per second. The mechanism consists of a short roller with a two-turn spiral or helix rotating over a paper tape and carbon paper, which are fed underneath. On the arrival of a signal, paper and carbon are lifted sharply up against the helix by a blunt knife-edge and, depending upon the duration of the blow, either a line or dot is printed. The duration of the dot is about 1/500 of a second, while the system is capable of passing messages at a speed of about 50 words per minute. No very elaborate means of synchronism between transmitter and receiver is required, and the apparatus is almost entirely free from atmospheric and other forms of electrical interference. This new radio-telegraph printer is intended primarily for use in conditions where line-telegraphy is not possible, or where interference makes other methods of communication impossible. At a demonstration in London, signals were received from the Königswusterhausen Station in Germany, using 8 kilowatts and sending out its ordinary service of news.

Science in Everyday Life and the Schools

THE British Science Guild has recently organised a series of lectures on science which are intended to bring before the pupils of secondary schools some of the remarkable advances in scientific knowledge and in its applications to everyday life which are being

made at the present time. The first two lectures were delivered in March to girls from London secondary schools by Mr. C. C. Paterson, director of the Research Laboratories of the General Electric Co., Ltd., Wembley, and have now been issued by the Guild as a pamphlet (Pp. 20. 1*s*.) entitled "The Electron Liberated; its Industrial Consequences". They deal with the emission of electrons from hot and illuminated surfaces and the uses made of them in modern electrical engineering, in particular in the production of light. The mysterious dual character of the electron as a missile and a group of waves is not forgotten, and the necessity for more and better knowledge of its properties is insisted on. The Guild is to be congratulated on the inaugural lecturer, to whom thousands of electrical engineers listened with such pleasure on the subject last year. The sooner other schools can have the benefit of lectures of this type, the better it will be for our future citizens.

Industrial Administration, at Loughborough College

FACILITIES for training in industrial administration and management are now increasing in Great Britain, the latest development being that at Loughborough College, where a Department of Industrial Administration was inaugurated last year. The courses provided are of an intensive nature, extending over short periods, and the aim is to provide a kind of staff college for industry where executives may be given an insight into a larger range of administrative practice than they would be likely to obtain in the ordinary way. The scope of the new department is thus somewhat different from those now well established at the Manchester College of Technology, or the London School of Economics, which provide courses extending over one or two academic years. The facilities provided at Loughborough include week-end, ten-day and longer courses adapted to the degree of experience of those attending. Instruction includes lectures, organised reading, group discussions, personal discussion of individual problems and visits to works and offices. It is intended that the week-end courses should be confined to executives with practical experience in the same industry, and in the first instance, these are being provided for engineering executives and will deal with such special topics as costing, rate-fixing and progress control. In the prospectus of the Department, it is pointed out that the various courses are of especial value to owner-managers who have not been able to acquire experience in other businesses, and to executives whose experience has been confined to a restricted field.

Meteorology of the South Seas

APIA OBSERVATORY, in Western Samoa, is under the control of the Department of Scientific and Industrial Research, New Zealand, and the work is directed by Mr. J. Wadsworth, formerly in the Meteorological Office, Air Ministry, who has recently presented his report for 1932 to the Observatory Board in the form of a compact and very clearly printed little volume of 114 pages. The report is a summary of observations in terrestrial magnetism, seismology, meteorology and atmospheric electricity. Synoptic weather charts were made on every day of the year, the data being collected by the wireless station at Apia from twenty observing stations in other groups of islands in the South Pacific, and sometimes from passing ships. Since May 1932 a daily weather report has been exhibited at the Post Office and Customs House in Apia, at the request of local shipowners. Considering the small size of the staff, which consists of the director and two scientific assistants and four locally recruited clerks, the amount of work accomplished, especially on the purely meteorological side, seems highly satisfactory. Upper winds were measured with the aid of pilot balloons on seventy-eight occasions; the usual meteorological instruments were maintained, while in addition a Piché evaporimeter and a Wilson radio integrator were read daily at 9 a.m. The meteorological summaries are so detailed that a very clear idea can be formed of the weather experienced from day to day in this part of the South Seas; they include, also, less detailed climatological summaries from other groups of islands. An even fuller programme was contemplated, for arrangements were being made for re-conditioning and bringing into use a spectrohelioscope which was obtained on loan from Mount Wilson Observatory.

Standardisation of Insecticides and Fungicides

THE standardisation of insecticides and fungicides has for some years been a matter of discussion among both the users and manufacturers of these chemicals, and requests from farmers and growers that the content of active materials in these products should be guaranteed resulted in the publication by the Ministry of Agriculture of specifications of a number of those most generally in use (Advisory Leaflet No. 9). To meet the recent great development in the employment of insecticides and fungicides, a further publication has now been issued by the Ministry, namely, Bulletin 82, "Specifications and Methods of Analysis for Certain Insecticides and Fungicides" (London: H.M. Stationery Office. 3*d*. net). In this bulletin, the specifications already published have been brought up to date, and additional specifications for certain compounds such as copper fungicides, not previously dealt with, have been included. In addition, agreed methods of analysis, drawn up in connexion with the specifications, are supplied. Both specifications and analytical methods have been accepted by the Association of British Insecticide Manufacturers, the Government Laboratory, the National Farmer's Union and the Ministry of Agriculture. Purchasers are strongly advised to require a guarantee that materials supplied comply with these specifications, for, by so doing, they ensure that they obtain standard products of high quality.

Lancashire Sea-Fisheries Research

THE report for 1932 (No. 41) on the Lancashire Sea-Fisheries Laboratory at the University of Liverpool (1933), edited by Dr. R. J. Daniel, is in