

## News and Views.

IN his presidential address to the British Association at Oxford in 1926, and on many other occasions, the Prince of Wales has shown that he is fully aware of the part that scientific research and invention can play in promoting the welfare of the human race. He returned to the subject in the course of his presidential address to the Congress of the Universities of the Empire, delivered in Guildhall on July 3. "It is borne in upon us daily more clearly", he said, "that the material progress of mankind will depend in an ever-increasing degree on the application of modern science to modern industry". In our leading article this week (p. 45), we have dealt with the chemical industry of Great Britain, and it is shown that while it is suffering from the present world-wide economic depression, yet it has suffered less than other industries. It owes its position to the technical progress which has been made, and to appreciation of scientific methods in research, management, and salesmanship. Here is an immediate justification of the Prince of Wales's remarks, if such be needed. By his wide travels within and beyond the British Empire, the Prince has had unrivalled opportunities of acquiring broad views of men and affairs. This gives added weight to his words, which will, we hope, help towards a fuller recognition of the value of the scientific worker to the community. At the same time, the scientific worker must himself be prepared to take his share of civic responsibility, as indeed in most cases he is fully competent to do.

Two American aviators, Messrs. Post and Gatty, landed in New York on the night of July 1, having flown round the earth on a 'small circle' course in the northern hemisphere, in nine days. The approximate length of the flight was 16,000 miles, the longest single day's 'hop' being 2500 miles from Khabarovsk to Solomon, Alaska, crossing the Bering Strait. The machine used was an American-built Lockheed "Vega" specially prepared for fast long-distance flying. This has been hailed by the press generally as a flight round the world—a misnomer, in that a passage round the globe on a 'great circle' course would have needed a flight of approximately 24,000 miles. As a feat of physical endurance on the part of the crew this performance is probably unsurpassed, but it was carried out on a special machine and in such a manner that it does not prove that such flights are yet commercially possible, or that the repetition of such risks is even advisable. It is, however, a tribute to the steady technical improvement in aeroplane and aero engine design. The only previous occasion of a similar flight was in 1924, when it was attempted by four U.S. Army aeroplanes. Only two completed the journey, after considerable delay due to the necessity for many repairs and the substitution of several new engines *en route*.

ACCORDING to a dispatch from the Paris correspondent of the *Times* in the issue of June 29, the Public Prosecutor of Cusset has reported in favour of dropping the prosecution for fraud against M. Émile

Fradin, who was responsible for the discovery of inscribed clay tablets and other alleged antiquities at Glozel. The Public Prosecutor finds that there is no evidence to show that M. Fradin was responsible for placing these objects in the ground, and further that, as he did not profit, it would not be possible to maintain an action for fraud, as it must be shown that the deceit was practised for profit. The report, which must of course be accepted as in accordance with the principles of French law, is, to say the least, unfortunate from the point of view of the archaeologist, if, as it suggests, it means that anyone is at liberty to foist an impudent imposture on an unsuspecting public, provided care is exercised to avoid the appearance of direct financial gain. It must be obvious that many advantages might, and indeed did, accrue to the Fradins and those associated with them, even if up to the time the bubble burst they had not actually exploited financially any of their 'precious' finds.

CITRUS growing in Southern Rhodesia is yet in the early stages; the total export for the year 1930 was 170,000 cases, 91 per cent of which was grown on the British South Africa Company's estates. The directors of this Company, which owns more than one half of the present plantings in this Colony, have adopted the policy of basing the industry on scientific research. With this object in view, they have increased the research staff in Southern Rhodesia, and on April 1 created a citrus experimental station of their own, with headquarters on the Mazoe Citrus Estate. The director of this station is Dr. W. J. Hall, assisted by a staff consisting of a chemist, plant pathologist, entomologist, and research horticulturist. Adequate laboratories are nearing completion, and will be suitably equipped, and a large plot of land has been allotted for use as an experimental plot for all field experiments. The prime function of the station is research, and all work undertaken will be in accordance with the practical needs of the citrus industry in Southern Rhodesia. Some of the major lines of investigation will be to establish those varieties most suitable to local conditions; improvement of strains by continuous and intensive bud selection; investigation of stock and scion relationships; the entire manurial programme; breakdown and wastage in transit; study of plant diseases and insect pests with the view of devising control measures and reducing the losses from their causes to a minimum. It is hoped to print an annual report, and also to publish from time to time such results as may appear worthy of record.

DELESSERT, in his work "Voyages dans les Deux Océans", published in 1848, says on p. 94, when referring to parrots in Australia, that the budgerigar (*Melopsittacus undulatus*) is the rarest and most charming, and that it is most amusing to hear it speak, which it can easily be taught to do. Gould, eight years before, had taken to England what he believed were the first living specimens to be imported: abundant importations soon followed, but the bird

has turned out to be so readily bred in captivity that for a good many years now, until the recent ban on the importation of parrots, owing to the fear of psittacosis, the market was chiefly supplied by French-bred specimens, which were finer than the Australian-caught birds. Yellow varieties have been recorded among the wild Australian stock, and this variation has long been fixed among the tame birds. A blue form had been heard of here, but passed almost into a legend among aviarists, having originated in Belgium so long ago as 1880. In 1910, it was exhibited in London, and aroused very keen interest, which was renewed by further introductions after the War. Blues were eagerly sought for and bred, either pure or crossed with greens, which dominated this colour as well as yellow. Cross-bred budgerigars, on the whole, conform to Mendelian expectation, but the main interest of the impetus given by the new colour and the ban on parrot importation is that the birds are now often taken when young and taught to talk, showing, according to accounts which have recently appeared in *Cage Birds*, as much proficiency as an average grey parrot. A thoroughly domesticated creature which can be taught to speak should be of interest to any laboratory of eugenics, and the budgerigar is as clean and frugal as it is attractive, so that it is ideal for experimental breeding.

THE Committee on Organisation of the Sixteenth International Geological Congress has decided to postpone the meeting of the Congress for a year, to the latter part of June 1933. It was felt that the generally adverse economic conditions throughout the world made this postponement desirable. The following topics for discussion have been tentatively adopted: Measurement of geological time by any method; batholiths and related intrusives; zonal relations of metalliferous deposits; major division of the Palæozoic system; geomorphogenic processes in arid regions and their resulting forms and products; fossil man and contemporary faunas; orogenesis. The routes of the excursions have been selected and work is well advanced on the preparation of the guide-books. A series of excursions before the Congress of from five to twelve days in length will cover the eastern and central States. These will, so far as is possible, be arranged to appeal to specialists in various branches of geology. There will also be a number of short excursions in the vicinity of New York. During the session of the Congress, which will last about a week, several short trips will be made to points of interest in the vicinity of Washington. The excursions after the Congress will include two in the north-central States—one for glaciologists in Illinois, Iowa, and Wisconsin, and the other for mining geologists in the Lake Superior iron and copper districts, each of about ten days duration—and two transcontinental trips, each of about thirty-five days. Further particulars can be obtained from the Secretary, Sixteenth International Geological Congress, U.S. Geological Survey, Washington, D.C.

"CRIMINAL STATISTICS", being the statistics relating to crime, criminal proceedings, and coroners'

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investigations for the year 1929 (London: H.M. Stationery Office, 1931. 3s. 6d. net) raises some interesting problems. It is impossible to follow up all the questions suggested, but one that must be of importance to everyone is the significant relation between crime and industrial depression. The report states that even in normal times there are certain differences between the incidence of crime in industrial areas and non-industrial areas. In 1921 the incidence of crimes against property and of sexual offences was higher in the north of England than in the south, although in crimes of violence against the person it was slightly lower. In 1929 the position in the north had become relatively worse; although the population had increased only by 4 per cent, while that of the south had increased by 5 per cent, yet the increase in the incidence of all classes of indictable offences was 34 per cent as against 24 per cent in the south. The report suggests that the reason is the state of industrial depression from which the north of England is suffering. Analysis of the ages of the offenders shows that the incidence of crime among men above thirty years of age has not increased, but that as regards boys under sixteen years of age, the number found guilty in the north of offences of dishonesty is much higher than in the south. Industrial depression introduces conditions particularly detrimental to the young in destroying the direct incentive of good prospects, quite apart from the bad effects of idleness or inadequate work. The hope is expressed in the report that, when trade and industry improve, this kind of crime will diminish.

IN the last number of the *Archives de l'Institut de Paléontologie Humaine*, Prof. Charles Fraipont, of Liège, has published a memoir on the "Cerebral Evolution of the Primates, with special reference to the Hominidæ", which he dedicates to the distinguished editor, Prof. Boule, whose anthropological views he, for the most part, adopts. Although references are made to the works of Dubois and Tilney, the author seems to be unacquainted with the significant researches on the distinctive attributes of the human brain and their biological significance which have been accomplished in Great Britain, the United States, Germany, Austria, and other countries, besides those in France and Belgium, during the last thirty years. If Prof. Fraipont had made himself acquainted with these works he would scarcely have made such surprising claims as he puts forward in this memoir. Among other bizarre arguments, he states that the refinement of the hand made possible the reduction of the muscles and bony parts of the face, and that the latter changes permitted the hypertrophy of the frontal lobes of the brain, and consequently the emergence of human intelligence. There are some excellent photographs and radiograms of the bones of the leg to illustrate the evolution of the lower limb in apes and men.

M. FERDINAND LOT in his Sir John Rhys Memorial Lecture for 1930 on "Bretons et Anglais aux V<sup>e</sup> et VI<sup>e</sup> siècles", which has recently been issued by the British Academy (London: Oxford University Press,

1931. 1s. 6d. net), refers to the sources of information on this period in terms which fully justify our recent comments in these columns on the suggestion put forward by the editor of *Antiquity* that a chair for the study of English archæology is badly needed. He points out that, with the exception of Gildas, there is no literary authority of weight for the invasion and early years of domination of the Saxons in England; and that study of archæological remains and their distribution alone, within certain limitations, will afford any basis for our knowledge of the relation of Saxon and Briton in this and the succeeding period. Yet, as M. Lot points out, the fact that the Saxons found a place of refuge in England where they were able to develop an independent political and economic life of their own undisturbed, while other migrant peoples on the Continent were unable to find any settled resting-place, constitutes the Saxon invasion of Britain as one of the most important events in the history of the world. This, which a moment's reflection will show is no exaggeration, makes it all the more remarkable that so little provision should be made for systematic study of the earlier stages of Anglo-Saxon and English culture.

FROM the fourth annual report of the Australian Council for Scientific and Industrial Research it is evident that important results of economic value have already been obtained, and that the necessity for further development along scientific lines, if prosperous conditions in the Commonwealth are to be restored, is fully recognised. Through the discovery of methods for controlling plant disease, notably in the cases of bitter-pit in apples and bunchy top in bananas, large savings have already been made. The eradication of weed pests such as St. John's wort and prickly pear, by means of the introduction of insects which feed upon these plants, continues to prove amazingly successful, the monetary value of this line of work amounting to millions of pounds. The outstanding achievement in connexion with animal research is the discovery of an effective vaccine against black-disease of sheep, and animal nutrition investigations, though but recently begun, are already yielding valuable results. Since the establishment of the Council's Viticultural Research Station at Merbein the yield of dried fruit per acre has been doubled and the quality considerably improved. Marked success has also attended the division of forest products research, satisfactory paper pulp being obtained from hardwoods previously regarded as entirely unsuitable for this purpose. Many other fundamentally important lines of research are being carried out, and, to quote from the report, "it is obvious that, despite its comparatively recent formation, the Council has already been responsible for large national savings many times greater than its annual cost, and that its possibilities in the not far distant future are even greater."

METEOROLOGISTS have not yet succeeded in giving a clear account of the general circulation of the earth's atmosphere, that is to say, of the distribution of the prevailing winds at various seasons. It is true that

the main features of the surface circulation are known, and that attempts have been made to show the circulation at greater heights by deductions based on surface pressure and temperature and the known relationships between horizontal pressure gradient and wind. Such theoretical representations cannot be accepted indefinitely as a substitute for accounts based on actual observation. On land, owing partly to the stimulus received from the needs of aviation during the War, the gaps in our knowledge are gradually being filled by organised exploration with the aid of pilot balloons. One is glad to learn from an article by Commdr. L. G. Garbett, superintendent of the Royal Naval Meteorological Services, in a recent issue of the *Marine Observer* (No. 91), that our very scanty knowledge of upper winds over the oceans is being rapidly increased by systematic observations undertaken on a number of His Majesty's ships, according to a scheme initiated in 1925. During 1931 no fewer than 1500 observations are to be made in various parts of the world, and this year's programme is to be repeated during forthcoming years. The observations are being received at the Meteorological Office, Air Ministry, and are to be shown graphically on a network of 'squares' measuring 10° in latitude and longitude. The soundings frequently extend up to a height of 20,000 feet when clouds do not interfere, and one made in Australian waters reached 49,000 feet, that is to say, nearly the same level as that to which Prof. Piccard ascended recently. In some instances, measurements of temperature are made. The accumulated material will be available at the Air Ministry for consultation by aviators and for meteorological research.

ONE of the great advantages of an electrical supply is the ease with which it can be applied to provide labour-saving devices. The switches for electric fires are now frequently fixed so that without moving the armchair it is possible to turn it on, regulate the heat it gives out, and turn it off. There is no domestic drudgery involved. At first sight some of these labour-saving devices seem almost unnecessary. For example, when measuring the insulation resistance of a network a voltmeter reading has to be divided by an ammeter reading. The arithmetic involved is very simple, but there is a device in much demand which by placing the pointers of the instruments on opposite sides of the same dial tells the resistance by noticing their point of intersection and seeing the curve on which it lies. Similarly, on the dashboard of electric motor-cars the ammeter and voltmeter pointers by their point of intersection indicate the horse power expended on the car. Ingenious experimenters have recently invented devices for shutting and opening windows by pressing buttons, and devices for regulating and controlling their radio-receiving sets from a distance are coming into use in America. Many devices with this end in view are described in the *Wireless World* for June 17. It is well known that most set owners only listen in to a few stations. One device consists of a small metal box on the top of which is a set of six buttons. Two more buttons turn the receiver on or off, and a slight pressure on two other buttons varies the volume of the sound. A tiny lamp lights when the set is

in operation, and indicates by its varying brilliancy whether a station is tuned in to its most sensitive point on the dial. In elaborate installations in large mansions a more complex dialling system is used. In Great Britain the commonest arrangement is a switch which allows the user to turn off his set the last thing at night without getting out of bed.

THE *Transactions* of the Institute of Marine Engineers are issued in monthly parts, and these include many articles from the technical press which are of interest and value to the members, who, owing to the nature of their calling, can seldom visit libraries. The inclusion of these notes has caused the volumes to become rather bulky, and so with the commencement of vol. 43 the size of the pages has been doubled. It is now 11 in. by 8½ in. and corresponds with the size of the *Transactions* of the Institution of Naval Architects. The alteration is a great improvement and will be appreciated by all who read the *Transactions*. Of the two monthly parts issued in the new form and size, that for February contains the paper on the "Electrical Equipment of a Modern Ship" read by Mr. J. E. Allan on Jan. 13, while that for March contains the paper on "Water Tube and/or Scotch Boilers" read by Mr. H. E. Yarrow and S. Hunter, jun., on Feb. 10. Both papers are accompanied by a full report of the discussions. The February issue also contains a portrait of the late Sir Charles Parsons, who was a past president of the Institute. The Institute took a foremost part in arranging the memorial service held on Mar. 22 in St. Botolph's, Aldgate, to commemorate the centenary of the death of William Symington, the father of marine engineering, whose death took place in a house in Burr Street not far from the spot now occupied by the headquarters of the Institute.

THE Engineering Experiment Station of the University of Illinois includes a locomotive laboratory in which tests of service locomotives can be made. Such a laboratory is urgently needed in Great Britain and has, for some time past, been under the consideration of a committee appointed by the Department of Scientific and Industrial Research and presided over by Sir Alfred Ewing. The laboratory at Urbana, Illinois, was described in *Bulletin* No. 82, of the University of Illinois Engineering Experiment Station, while a recently issued *Bulletin*, No. 220, describes the tests of a Mikado-type locomotive equipped with Nicholson thermic syphons, conducted in co-operation with the Illinois Central Railway Company and the Locomotive Firebox Company. A syphon is a supplementary water leg or circulating chamber riveted to the roof of the firebox and the bottom of the tube plate to stimulate the circulation of the boiler water and increase the transfer of heat. The results of the tests showed that the syphon-equipped locomotive possessed a definite and notable superiority over the non-syphon engine as regards both evaporation per pound of coal and boiler efficiency. Under identical conditions of operation, the weight of steam generated per pound of coal would be on the average 8.5 per cent greater with the syphons

than without them. There are at the present time about 13,000 syphons in service on American and Canadian locomotives. Copies of *Bulletin* No. 220 can be obtained from the Engineering Experiment Station without charge.

A GREAT collecting expedition to Australia is announced by Science Service, of Washington, D.C. Harvard Museum of Comparative Zoology is determined that its collection of Australia's rare and strange animals shall be one of the largest and best-balanced collections in the world. To that end an expedition, led by Prof. W. M. Wheeler and having the advantage of the presence of Dr. Glover M. Allen, is to leave New York on July 25. The expedition is to be in the field for a year, and is to visit many isolated and little-explored faunal areas in Australia and Tasmania. In addition to mammals, birds, reptiles, insects, and other forms of animal life will be collected. We wonder how long the rare animals of the world will survive the tax of scientific collecting expeditions, and when the museum scientific worker will act on the principle that more is to be learned by studying creatures alive in their native haunts than by measuring their skins in a laboratory. We trust, in any case, that Australia will see to it that the 'bag' of the really rare creatures is strictly limited; for a bird in the bush, in such a case, is worth two in the hand.

IN continuation of its work for the good of mankind, the Institut International de Co-opération intellectuelle, Paris, has published an account of the organisation and activities of "Instituts Nationaux à l'Étranger". The brochure, of 124 pages, includes the names of two categories of institutions: research institutes established by any country in a foreign land, and institutes established in foreign lands to spread there a knowledge of the language and civilisation of the founder country. The objects of the institutes, their personnel, mode of subvention, date of origin, and publications are summarised—a first attempt to give a comprehensive survey of those scientific foundations in foreign lands, which not only make their contributions to scientific knowledge, but also, since they form centres of international scientific collaboration, add to the comity of the nations. Of the 87 research institutes, founded by 16 different countries in 25 other lands, Great Britain claims only 8, a poor figure compared with the 12 representing the United States, 17 representing Germany, and 24 representing France.

AN exhibition of the finds of Mr. Guy Brunton's expedition to middle Egypt during the past season opened in the Nimrud Gallery of the British Museum on July 2. A large number of objects from the earliest pre-dynastic periods, and from the sixth to twelfth, the nineteenth to twenty-sixth dynasties, and the Christian Coptic period of about A.D. 300–500 are shown. The 'Tasian' and 'Badarian' objects include a fine well-preserved black ripple bowl. An 'Amratian' bowl of red-painted ware has a crocodile and a number of small hippopotami moulded on the rim. Other Amratian objects include a number of anthropomorphic amulets of ivory and slate palettes of various

forms, including birds and fishes. There is a large number of beads of various periods. The Coptic objects include a number of shoes, some of which had belonged to children.

THE New International Association for Testing Materials (N.I.A.T.M.), which was formed as a result of meetings in Amsterdam in September 1927, will hold its first congress in Zurich next September. The president is Prof. A. Mesnager. The work of the congress will be divided among four groups, namely, (a) metals, chairman, Dr. W. Rosenhain, of the National Physical Laboratory; (b) non-metallic inorganic materials, chairman, Prof. M. Roš, of Zurich; (c) organic materials, chairman, Prof. J. O. Roos, of Stockholm; and (d) questions of general importance, chairman, Prof. W. von Möllendorf, of the Staatliches Materialprüfungsamt, Germany. The proceedings will commence on Sunday evening, Sept. 6, with a reception in the Zurich Polytechnic and addresses by the president and others. The sections will meet each day in the Polytechnic and the plenary session taking place on Friday afternoon, Sept. 11. Visits to works, excursions to places of interest, and various entertainments are being arranged. Particulars of the travelling arrangements and hotel accommodation can be obtained by members affiliated to the British branch of the N.I.A.T.M. from Mr. G. C. Lloyd, 28 Victoria Street, London, S.W.1. The autumn meeting of the Institute of Metals will also take place in Zurich in the week commencing Sunday, Sept. 13—that is, immediately following the Congress of the N.I.A.T.M.

THE tenth annual conference of the Institut International de Bibliographie will be held on Aug. 25–29 at the Hague. In addition to the presidential address, by Prof. A. F. C. Pollard, and the reports of the secretaries, more than a score of papers will be presented. Although the activities of the Institut embrace all branches of knowledge, scientific and technological interests are very well represented, as is shown by the following selection from the papers: "Le rôle et l'Organisation de la Documentation de la *Revue Générale de l'Électricité*", by E. Beinet; "Probleme der bibliographischen Praxis", by Dr. Julius Hanauer, of the A.E.G.; "L'Organisation de la Documentation dentaire par la F.D.I.", by Dr. Émile Huet, delegate of the International Dental Federation; "Rapport sur le 'Repertorium Technicum'", by J. M. C. Müller, Bataafsche Petroleum Company; "International Abstracting and Indexing of Scientific and Technical Literature", by Sir Frederic Nathan; "Aufgaben und Organisation eines Referatenorgans", by Dr. Maximilian Pflücke, of the *Chemisches Zentralblatt*; "The Bibliography of Physiology and the Application thereto of the Decimal Classification", by Dr. J. G. Priestley (Oxford); "La Classification décimale dans le Domaine de la Médecine", by Dr. René Sand, Ligue des Soc. de la Croix Rouge. In addition to the more serious business of the Conference, a very interesting programme of receptions and visits has been arranged. Full particulars may be obtained from the Secretariat, Institut International de Bibliographie, Carel van

Bylandtlaan 30, La Haye, Netherlands; or from the honorary secretary, British Society for International Bibliography, Science Library, South Kensington, S.W.7.

THE following have been elected foreign members of the Royal Society: Prof. Charles Fabry, of Paris, distinguished for his work in connexion with the modern interference methods in spectroscopy and the modern system of wave-length standards; Dr. Emmanuel de Margerie, of Strasbourg, distinguished for his work on the tectonic geology of parts of France and especially of the Pyrenees; and Prof. Heinrich Wieland, of Munich, distinguished for his work on organic chemistry.

THE Right Hon. Sir Herbert Samuel, M.P., has accepted the presidency of the British Institute of Philosophy in succession to the late Lord Balfour. Distinguished lecturers during the forthcoming session will include: Sir James Jeans, Prof. S. Alexander, the Dean of St. Paul's, the Archbishop of Armagh, Prof. J. S. Haldane, and Dr. C. D. Broad.

WE regret that a misprint has appeared in the letter entitled "Ultra-Violet Absorption and Raman Effect for Hydrazine" by S. Imanishi in *NATURE* of May 23, p. 782. The line 1120 is attributed to the N-N (single bond) vibration in the hydrazine molecule and not to the N-H vibration as stated in line 34 of the communication.

IT is stated in a *Bulletin* of Science Service that Dr. L. O. Howard, formerly chief entomologist of the United States Department of Agriculture, will receive the Capper award for 1931. This award consists of a gold medal and a cash purse of five thousand dollars. It was founded by Senator Arthur Capper of Kansas, and is given each year to a scientific worker who has made notable contributions to the progress of agriculture.

AN addition must be made to the list of zoological journals, with the appearance in December 1930 of the first part of volume 1 of the *Journal of Science of the Hiroshima University*, Series B, Div. 1 (Zoology). The first portion contains three papers by Yoshio Abe; two of these deal with mammals, and to them further reference will be made in our "Research Items". The journal is beautifully printed, both as regards text and plates, and it is announced that reports are to be published as they are received, and that each volume is to contain about 200 pages. Two of the papers in the first part are in German and one is in English.

THE issue of the *Quarterly Journal of Microscopical Science* for April contains an article of eighteen pages by Prof. E. S. Goodrich on the work of the late Sir Ray Lankester, which gives an excellent review of the chief points in the long series of his published works. Lankester's first papers, on Gregarines and on Tubifex, appeared in 1863, and his subsequent publications ranged over almost all the principal classes of the animal kingdom. The article brings out clearly the great part Lankester played in the progress of zoological science, and incidentally indicates how many of the terms employed in modern zoology and embryology are due to him.

THE first three numbers of a new publication which abstracts the current papers on plant genetics (with the exception of herbage crops) have now appeared. They are published from the Imperial Bureau of Plant Genetics (School of Agriculture, Cambridge) and are issued quarterly at a price of 5s. per annum, or 1s. 6d. for single copies. The three numbers contain respectively 23, 36, and 52 pages, and will be of much service to all workers in plant genetics. In the abstracts, particular attention is given to practical developments in plant breeding and to the genetics of economic plants, but papers of general or theoretic interest are included.

THE Faculty of Medicine of the Egyptian University, Cairo, has published a volume of 506 pages entitled "The Bibliography of Schistosomiasis (Bilharziasis), Zoological, Clinical, and Prophylactic". It has been compiled by Mohamed Bey Khalil, professor of parasitology in the University, and is divided into an alphabetical index of authors (232 pages) and a classified index of subjects. The Schistosomes constitute a family of the Trematoda or flukes, of which three species attack man and others are met with in other animals. The history of schistosomiasis commenced with the discovery of *Distomum hæmatobium* as the cause of endemic hæmaturia (urinary hæmorrhage) in Egypt by Theodor Bilharz in 1851, a half-tone plate of whom forms a frontispiece to the volume. The bibliography is a monumental piece of work, creditable alike to the author, the University authorities, and the printers, Paul Barbey of Cairo.

THE Ministry of Health has issued an eighth memorandum on cancer (*Circular* 1186). It deals with cancer of the lip, tongue, and skin, and an analysis of the recorded deaths by sexes shows that lip and tongue cancers are much more frequent in the male sex, but skin cancers are only slightly more prevalent among males if certain 'occupational' cancers (due to soot, tar, oils, etc.) be excluded. The curability and survival rate for lip and skin cancers are high, but for the tongue the results of treatment are much less favourable. With lip and tongue cancers, some irritative condition is a common antecedent, and syphilitic lesions of the tongue appear to predispose to cancer of this organ. There is nothing to incriminate ordinary tobacco smoking as a predisposing cause of cancer, provided the mouth and tongue are in a healthy condition. In the skin, warts, birthmarks, and scars are liable to develop cancer, but particular sources of irritation over a long period are the predominant cause of cancer, such as X-rays, tar and pitch, soot, certain mineral oils, arsenic, possibly heat rays, etc.

WE have received from Messrs. Baird and Tatlock (London), Ltd., a copy of a book entitled "Analytical Reagents, Standards and Tests", which they have recently issued in conjunction with Messrs. Hopkins and Williams. The book deals with most of the common reagents, in each case a series of tests for possible impurities being given. There is also a list of bench reagents, giving the method of prepara-

tion. The use of the book will enable the chemist to check for himself the purity of the materials he purchases, and should prove very useful in analytical laboratories. Several organic compounds are included.

MESSRS. Henry Sotheran, Ltd., 43 Piccadilly, W.1, have sent us part 1 of their "Catalogue of Exact and Applied Science" dealing with periodical publications, general and collected works, and mathematics. Nearly 2000 works are included and (as is usual with Messrs. Sotheran's catalogues) many valuable bibliographic notes are appended. The catalogue is one that should not be missed. Two further parts are promised dealing with astronomy, physics, geology and meteorology, chemistry and chemical technology, and engineering.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—A junior laboratory and lecture assistant in the physics department of the University of Manchester—Prof. W. L. Bragg, University, Manchester (July 14). An assistant under the Ministry of Transport (Roads Department) for work in connexion with road traffic—The Establishment Officer, Ministry of Transport, Whitehall Gardens, S.W.1 (July 14). A probationary tutor in economics and allied subjects at University College, Nottingham, for extra-mural classes—The Registrar, University College, Nottingham (July 15). A lecturer in the Department of Chemical Engineering of University College, London—The Secretary, University College, London, Gower Street, W.C.1 (July 17). A chief librarian and clerk to the Library Committee of the County Borough of Ipswich—The Clerk to the Library Committee, Central Public Library, Ipswich (July 18). An assistant lecturer in mathematics in the University of Manchester—The Registrar, University, Manchester (July 20). An assistant superintendent of classes for instruction in the principles of boot and shoe manufacture, under the Northamptonshire County Council Education Committee—The Secretary for Education, County Education Offices, Northampton (July 20). A temporary assistant lecturer and demonstrator in botany at the University College of South Wales and Monmouthshire—The Registrar, University College, Cardiff (July 23). A tutor of psychology and philosophy at Loughborough College—The Registrar, Loughborough College, Leicestershire (July 25). A temporary technical assistant under the Directorate of Ordnance Factories of the War Office—The Permanent Under-Secretary of State for War (C.4), War Office, Whitehall, S.W.1 (Aug. 1). A head of the Department of Chemistry and Rubber Technology of the Northern Polytechnic—The Clerk, Northern Polytechnic, Holloway, N.7. A woman senior assistant for the science library and information bureau of the Research Association of British Flour Millers—The Director of Research, Research Association of British Flour Millers, Old London Road, St. Albans. Two temporary assistants under the Directorate of Ballistic Research of the Research Department, Woolwich—The Chief Superintendent, Research Department, Woolwich, S.E.18.