Silver Jubilee of the Indian Chemical Society

THE *Journal of the Indian Chemical Society* is now so well known that many will perhaps be surprised to learn that the Society is only twenty-five years old. The silver jubilee was celebrated at the annual meeting held in Allahabad on January 3 last, when messages of congratulations were received from sister societies in other countries, fittingly headed by one from the oldest Chemical Society, that of London, which recently celebrated its centenary. As was natural, many tributes were paid to the first president, the late Sir Prafulla Chandra Ray, to whom more than to anyone else must be given the credit for the development of chemical research in India. Some account of India's contributions to chemical science is given in a jubilee publication which contains photographs of the past presidents and honorary fellows. In the course of his address, the president, Prof. P. Ray, wisely laid particular emphasis on the importance of fundamental scientific research and to the lack of inspiring teachers and investigators in the schools and universities. According to Prof. Ray, the situation in this respect has recently become worse owing to the departure of many university teachers to take up administrative posts in Government departments. This is a danger present not only in India. Prior to delivering his address, the president announced the election of five honorary fellows, among whom we were glad to note the name of Sir Robert Robinson. We feel sure that, when the Society celebrates its golden jubilee, its fellows will look back with pride and thankfulness to those who served it during its first twenty-five years.

Men, Managers and Machines

IN his monograph "Scientific Management" (Monographs on Higher Management, No. 9, Department of Industrial Administration, Manchester Municipal College of Technology; May 1948), Mr. G. Chelioti urges that the essence of management is the art of getting things done through the agency of other human beings, and that management itself is incapable of becoming a science. He regards science as the foundation and the provider of the tools of industry, and the technician as the primary servant of science in industry; but he points out that the technician cannot manage human beings by means of his technology and that the manager dealing with a technical problem becomes a technologist for the time being. In urging this clear separation of the two functions of dealing with human beings and with technical problems or machines, Mr. Chelioti maintains that the undue domination of industry in the nineteenth century by the new element of modern technology, and the failure to regard industry as the servant of humanity and to consider sufficiently the human beings employed, was responsible for the revolt of the human spirit against subordination to the machine which we are still experiencing in spite of a more enlightened managerial outlook. Mr. Chelioti also reminds us that the current attitude of society was at least as much responsible for the revolt as the contemporary employers or managers, and his words should be carefully weighed in the discussion of the question of human relations in industry to-day.

Fungi as Human Pathogens

IT is fortunate that in Great Britain there are relatively few outbreaks of human disease caused by fungi. Such maladies are, however, much more common in the warmer parts of Europe and in the United States, where considerable study has been devoted to the diseases and their causal agents. Results of these investigations are published in the journal *Mycopathologia* (Dr. W. Junk, den Haag, Holland). The subject brings its own problems, particularly in naming and classification, some of which are discussed in a paper by T. Benedek (4, Fasc. 3; Dec. 1948). It is concluded that the dermatophytes cannot well be classified by the usual methods of botanical mycologists, and that it is preferable to retain the four form genera originally suggested by Sabouraud. This retains the tradition of the Fungi Imperfecti, where species are classified merely from the form of their asexual spores until the sexual forms are discovered. Mycologists will also find, in the same number of *Mycopathologia*, useful papers on the yeast flora of grapes, must and wine (R. Ciferri and O. Verona), and of the 'vegetation waters' separated from olive oil (R. Ciferri, O. Verona and F. Luparini). The blastomycetic microflora of fermenting tobacco is described by M. Giovannozzi. An investigation of antibiotic substances against Gram-negative micro-organisms has been made by G. Magni and A. Villa, and G. Magni has studied the biological significance of the pseudomycelium of asporogenous yeasts. W. J. Nickerson and O. F. Jillson also discuss the interaction of pathogenic fungi in culture, with reference to cell division in the dimorphism of pathogenic fungi. Specialist papers on mycopathology also appear; it is in no invidious sense that they are not reviewed here in detail. There are far more general mycologists than mycopathologists in Great Britain; but the former will nevertheless find much of interest in *Mycopathologia*.

Taxonomy of the Fungi

IN the issue for June 1948 of the *Transactions of the British Mycological Society* (31, Parts 3, 4) there are several papers which help to clarify the systemic positions of many fungi. A. A. Pearson and R. W. G. Dennis have reviewed the validity of the 1,870 specific epithets contained in the latest authoritative work on Agarics (Rea's "British Basidiomycetæ"). They have excluded synonyms, names attached to inadequate descriptions, and other variants of doubtful nomenclature, leaving a total of 1,234 species. Boletales have similarly been reduced from 70 to 47. The valid species are listed with short notes (pp. 145–190), and field mycologists should be grateful to the authors for the removal of such an incubus. This clarification has involved a re-examination by R. W. G. Dennis of several little-known agarics from the herbaria of Berkeley, Cooke and Massee; 29 of these are described in relation to the shorter list (pp. 191–209). Special groups of fungi have also been studied. The late T. Petch provides a revised list of British entomogenous fungi (pp. 286–304), including a new species, *Verticillium menisporoides*, found on spiders in Suffolk. Fungi which are associated with lichens have not hitherto been investigated very intensively. W. Watson lists (pp. 305–339) a large number of these, with notes on their characters and distribution. The Society's "List of Common British Plant Diseases" is kept up to date by the publication of emendations. A collection of these, designed to supplement the third edition of the List, appears in the present number of the *Transactions* (pp. 340–342). A new species of *Pyrenophora* from Italian ryegrass is described by

H. F. Dovaston (pp. 249–253). It is *P. Lolii*, and is possibly the perithecial form of *Helminthosporium siccans*. Other new species are described by N. C. Preston (pp. 271–276)—*Myrothecium jollymannii* from dried tobacco leaves in Nyasaland, and *M. striatisporum* from clay soil in New Zealand.

Establishment and Care of Lawns

AMONG the more general matters dealt with in a recent issue of the *Journal of the Board of Greenkeeping Research* (7, No. 24; 1948) are papers on the consolidation of lawn surfaces by bitumen, and a useful review of methods of earthworm control on lawns. R. B. Dawson and J. R. Escritt describe the method of stabilizing the surface of lawns by the application of sand and bitumen emulsion immediately after the grass seeds are sown. The treatment can also be applied to established turf. Lawn surfaces were much improved, and the process may be useful for small areas subject to heavy wear. Detrimental effects were not very marked, but the establishment of bent and timothy grasses was reduced. J. R. Escritt and J. H. Arthur review the methods available for earthworm control. Many species of earthworm do not form casts, and therefore are not a nuisance, but only help in aeration and soil mixing. Organic manures generally stimulate earthworm activity, while the presence of a turf 'mat' diminishes the production of unsightly casts. Factors of management and manuring are therefore important. The relative merits of mowrah meal, copper sulphate, potassium permanganate, derris, mercuric chloride, lead arsenate and other control substances are discussed and provide a very useful advisory review of this matter.

Sugar Beet Viruses

THE virus of sugar beet yellows has not hitherto been regarded as seed-borne. Phyllis E. M. Clinch and J. R. Lowthman have shown, however (*Sc. Proc. Dub. Soc.*, 24, No. 27; July 29, 1948), that seed of a new family of sugar beet (No. 41), when germinated, gives a considerable percentage of yellowed seedlings. The identity of this yellowing with sugar beet yellows is somewhat by implication; but the symptoms and physiological effects are similar. The paper also describes two types of yellows disease from commercial sugar beet crops in Eire. Sugar beet yellows is probably the most serious disease of this crop in England. R. Hull and Marion Watson have a useful paper in the *Journal of Agricultural Science* (37, Part 4, 301–310; 1948) on the relation of nutrition and variety with severity of yellows. Manurial treatments in general increase the yields of roots and sugar; but the losses caused by infection unfortunately increase proportionately as the mean yields increase. Fertilizers have little effect in varying the symptoms of the disease. Commercial varieties and some breeders' lines were tested for possible tolerance of the virus; but no useful indication of this was obtained.

Norwegian Strandflat

IN a paper in the *Geographical Journal* of January on the "Geomorphology of Norway", Prof. K. M. Ström returns to the topic of the strandflat, a topic which has evoked much controversy in past years. He believes that marine abrasion is much in evidence, though corrie glacier abrasion has played its part. The low plain cuts across fjord deeps and corrie lake deeps, and though local glaciers have certainly played a notable part, it is in the main due to marine abrasion. Prof. Ström cites the example of Moskenesöy, which has practically no strandflat on the inner or sheltered side, but has an abrasion platform 8 km. broad on the exposed side. The tendency to stress glacial action in the formation of the strandflat is probably due to the study of the strandflat where it shows a hummocky appearance through an overflow by ice during the last glaciation. The main features of the strandflat seem to have been abraded at successively lower levels since early Miocene times up to late Pliocene; this has been followed by excavation by glaciers from the inland ice and corrie glacier erosion and, finally, post-glacial marine abrasion in the peripheral areas where changes of level due to isostatic recovery have been least.

Earthquakes during January

FOURTEEN strong earthquakes occurred in various parts of the world during January. The strongest were those on January 23, 24 and 27, with epicentres in the Indian Ocean (about 600 miles south-west of Sumatra), near the Tonga Islands, and in New Britain respectively. Three earthquakes had deeper foci than is normal; two, having a depth of about 100 km., occurred on January 23 and 24, and the third, depth 600 km., on January 13 with an epicentre south of the Fiji Islands. It may be noted that no earthquake is so far known to have had its focus at a greater depth than 700 km. All the earthquakes during the month occurred in well-known seismic areas, though the one on January 28 in the Atlantic Ocean some 1,100 miles east of Bermuda is not in an area from which earthquakes often occur. Observatory records have been received from the central stations of the United States Coast and Geodetic Survey and from Strasbourg, and from individual observatories at Beograd (Jugoslavia), De Bilt (Holland), Durham, Kew, Strasbourg, Stuttgart and Toledo (Spain).

Mekran (Baluchistan) Earthquake of November 28, 1945

C. G. PENDSE has discussed all available data for the earthquake at Mekran in Baluchistan on November 28, 1945 (*Ind. Met. Dept., Sci. Not.*, 10, No. 125; 1946). The epicentre was in the sea off the Mekran coast, and strength 10 on the Rossi–Forel scale was attained in the epicentral area. The instrumental magnitude was about 6·7, and the energy was of the order of 10^{21} ergs. The earthquake was attended by a seismic sea-wave which affected the whole of the Arabian seaboard. At Karwar, about 1,000 miles from the epicentre, the wave flooded the creeks and inlets, and boats anchored in the harbour were cut off from their moorings. There was serious loss of life and property at Pasni, the height of the second wave there being estimated at between 40 and 50 ft. At Karachi four distinct waves were distinguishable, and at Bombay a seismic sea-wave 6½ ft. high was experienced. It has been reported that two rocky oval islets, about three miles apart, appeared about the same time as the earthquake, some 180 miles west-south-west of Karachi. One islet rose about 30 ft. above the water and the other about 100 ft., the former having an area of about 1½ square miles and the latter about a square mile. Earthquakes have occurred in the past in the area off the Mekran coast on February 4, 1938, and January 7, 1940. Earthquakes on land near the point occurred on September 2, 1938, October 29, 1941, July 3, 1942, July 4, 1942, and February 6, 1943. Very strong