INDIAN SPECIES OF ARISÆMA

By DR. D. CHATTERJEE The Herbarium, Royal Botanic Gardens, Kew

THE arum family (Araceæ) is well represented in tropical parts of the world, and, in India, genera like Colocasia, Alocasia, Typhonium, Amorphophallus and Pothos belonging to this family are commonly found. Some of these genera are associated with the hydrophytes and others form constituent plants of the secondary vegetation of the 'terai' forests or the foothill vegetation of the Himalayas. The 'terai' should be regarded ecologically as the real tropical rain forest. The arum family as a whole, therefore, comprises plants which are not found in high altitudes in India in places like Simla, Darjeeling or Sikkim. We are apt to think of plants like lofty Magnolias, Cedrus, Quercus, Rhododendrons and other plants like Primulas, Gentianas and Senecios when we imagine the vegetation at high altitudes in the Himalayas. An exception to this is the interesting and fascinating genus Arisæma belonging to the arum family. The species of this genus are always found in high hills and some reach altitudes of 15,000 ft. (5,000 m.) in the Sikkim Himalayas.

Some of the Himalayan Arisœmas are plants of great beauty, and their cultivation in gardens of temperate countries should open up a novel line to horticulture. The peculiar hood-like and deeply coloured spathe is the most attractive part of the plant, and species like A. Pradhanii (see accompanying figure), A. Griffithii, A. utile, A. Wallichianum, A. sarracenioides and A. nepenthoides should find a ready appeal to plant lovers. The coloration of the spathe of A. Pradhanii is described by Dr. Cromar-Watt of Aberdeen as follows: "When seen in sunshine the spathe looks more like some burnished metal than any vegetable production. A combination of velvety chocolate purple, chrysoprase green and pearly white with ribs of shining burnished copper in the inside." The plants flourish well in a cool greenhouse in a compost of rich loam, decayed leaf mould and sharp sand. They require plenty of moisture during the growing season, but afterwards they should be kept moderately dry and rested during the winter months.

Our knowledge of the Indian species has been enriched in recent years by some fine collections made in the South Indian hills by the late Prof. E. Barnes of Madras. Although Prof. Barnes was a chemist and had been teaching chemistry in India, his casual interest in plant collections has resulted in the discovery of eight new species of Arisæma. It is now possible in view of ampler materials to study the group and the interrelationship of the species. Hitherto, no one has attempted to arrange the Indian species in natural groups excepting perhaps Engler ("Pflanzenreich—Araceæ", 1920). Unfor-tunately, Engler's first group, *Fimbriata*, does not seem to contain plants with a simple spathe and appendix. Besides, there are fourteen other groups, and although some of them contain plants of natural alliance the interrelationship of the groups are somewhat obscured by sorting some one hundred species into fifteen groups. The Indian species should have a basic plexus in plants like A. exile and A. Jacquemontii and not in A. alba of the Fimbriata group as proposed by Engler. I have attempted a simpler



arrangement, and the species have been sorted in four main groups. The linear development from the basic species A. exile ends in A. Griffithii and A. Pradhanii. A parallel development is indicated in south India and the line must have separated from the main phase early in the evolutionary history. Besides these, there are two other smaller developments in northern India ending with species like A. tortuosum and A. nepenthoides. The general plan of Arisæma may be outlined as shown below :



A detailed account of the Indian Arisemas has been prepared and will be published elsewhere.

381:

ASSOCIATION OF SPECIAL LIBRARIES AND INFORMATION BUREAUX

ANNUAL CONFERENCE

THE tweety-first annual Conference of the Association of Special Libraries and Information Bureauxi held at the Polytechnic, Regent Street, London, during September 13-15, while less well attended than the previous conference and possessing the advantage of a single venue, was scarcely so successful in providing the opportunities for informal discussion and contacts, apart from the conversazione with which the Conference opened. This was again

followed by the annual general meeting, and the reports submitted to that meeting on the year's work again showed an increase in membership, which now stands at 712, and an increase in the subscriptions to £2,215. The honorary treasurer was able to report a surplus for the year on the income and expenditure account of $\pounds 671$, and in addition to grants of £300 from the British Council and £1,000 from the Department of Scientific and Industrial Research, the income included £253 from the Documentary Reproduction Service recently established. In view of the discussions at the previous Conference, a special Policy Committee was appointed during the year to review the memorandum and articles of association, to make recommendations regarding the relation between the Council and its committees and on the internal organisation of the Association. Certain broad proposals for the alteration of the articles of association were approved by the annual general meeting, and legal aid will now be obtained in redrafting, having regard, however, to the relations of the Association with the British Society for International Bibliography. Establishment of a special joint committee of the two bodies to work out a definite scheme of co-operation or possible coalescence was also approved by the annual general meeting, when Sir Reginald Stradling was elected president, Mr. T. M. Herbert re-elected honorary secretary, and Miss I. M. Shrigley honorary treasurer.

In his presidential address at the first session of the Conference, Sir Reginald Stradling discussed "The Place of the Intelligence Group in a Technical Team", dealing particularly with its place in the group of industries concerned with building and civil engineering with which he is connected. Sir Reginald pointed out first that in research on the problems of an old traditional industry there are usually no ready-trained scientific workers, and there is no division of science specifically directed to the practical need of the industry. The service of such large-scale human needs as building demands a combination of many branches of science, each contributing its own quota to the development of the applied science required. This determines the type of organisation required; and stressing the vital importance of teamwork, which must provide for the biological and social sciences as well as the physical, Sir Reginald emphasized that the problem of the leader of such a research team is to create the conditions under which his specialist colleagues can work without the feeling of frustration which results from too much regimentation. In creating such conditions the intelligence group often holds a key position in a research team, and Sir Reginald devoted most of his address to a discussion of the qualities desired in such an intelligence officer and of the training of senior men for such work. That training, he thought, should be as wide as possible, with a general degree in science as a minimum, industrial experience and two or more foreign languages. Moreover, selection by academic standards only is useless; although the presence in a research team of a man intimately acquainted with the resources of information at his disposal and also understanding the requirements of the research worker and fully and professionally aware of the team's objectives is one of the major advantages of team-work, recent trends in official circles suggest that the value of scientifically trained leaders in intelligence work is not yet appreciated. Sir Reginald Stradling's persuasive presentation of the dynamic aspects of intelligence work and library service concluded with a brief survey of the activities of the Association of Special Libraries and Information Bureaux, in which he referred to the steady growth in the industrial membership and indicated a future for the Association more on the lines of a learned society. We now particularly need to explore, he said, the best methods of getting the information already collected used effectively.

Following the presidential address, Mr. Theodore Besterman presided over a session at which Mr. A. D. Roberts presented a paper on "The Preparation and Coverage of Critical and Select Bibliographies". Mr. Roberts distinguished three types of bibliography: select and critical bibliographies of the literature of one subject as it stands at a named time; critical bibliographies published serially or in serials; and guides to the literature of various subjects. Works of the first class have always been needed by librarians and by subject specialists, and Mr. Roberts cited a number of examples drawn from various branches of science, pointing out both the need for sifting material for inclusion and referring to the difference of opinion as to what should be included. He also stressed the value of classification so as to facilitate their wider use and incorporation, but neither in his paper nor in the discussion that followed was the important point made that the basis of selection (other than a period basis) should be clearly stated. The effort involved in doing this might eliminate some of the disagreement between experts to which Mr. Roberts referred. Commenting on the second type of bibliography, Mr. Roberts emphasized the need for good critical surveys of many more subjects to enable men of science and librarians to get quickly at the most important writings on scientific subjects, thus reducing the necessity for laborious searches. In some subjects there is a need for critical literature surveys at different levels; and commenting on the tendency, in annual review volumes dealing with scientific subjects, to limit the survey to periodical articles, Mr. Roberts stressed the value of including monographs and books published during the period and also of quoting authoritative reviews for the works entered. Mr. Roberts recognized the limitations of such bibliographies and directed attention to the desirability of abstracting services doing more than list literature surveys without comment. His third type of bibliography covers a larger field, and very few books of this type have been published apart from some efforts in chemistry. Here, above all, it is important that the compiler of the bibliography should indicate clearly the class of reader to whom his work is addressed and the basis of selection. Indifference to these elementary principles has been responsible for much unsatisfactory work in all three types of bibliography, and yet neither in the paper itself nor in the discussion, except perhaps in a remark of Mr. Greenaway, of Messrs. Kodak, Ltd., regarding the date or period of a bibliography, did they appear to be sufficiently appreciated.

The paper "What an Industrialist Expects of an Information Service", which Sir Arthur Fleming and Miss B. M. Dent read before the following session, proved scarcely as challenging as might have been expected. Sir Arthur indeed, after stressing the importance of new knowledge and ideas in industry as a condition of progress, said that the industrialist requires accurate and comprehensive information and needs it quickly; but for the rest he contented himself with describing the information service developed during the last thirty years to meet the needs of the research and other departments of the Metropolitan-Vickers Electrical Co., Ltd. Sir Arthur paid tribute to the pioneer work of Mr. J. G. Pearce in the development of this service, the cost of which now he put at about £10,000 a year. A recent development is the issue weekly from 1945, in response to a request from the works senior staff, of an *Industrial Digest*, each number of which contains about fifty brief abstracts on factory processes and workshop practice likely to be of interest to factory executives.

Sir Arthur Fleming's paper was followed by one from Prof. R. S. Hutton on the communication of specialist information to business executives, in which he emphasized that the problem of bridging the gap between the academic world and the so-called practical man is essentially one of interpretation. There are psychological factors, and the scientific worker sometimes pays too little attention to the consideration of the most appropriate form of communication; but Prof. Hutton stressed the importance of clear and brief exposition. Referring to T. H. Huxley and W. H. Hudson as examples, he urged that however important clear expression and the planning of reports may be, the prime necessity is to concentrate attention on the actual target to which one's written or spoken word is directed. This aspect of the work of the research associations is of increasing importance, and Prof. Hutton concluded his paper with some hints to the individual information officer and a plea for more imagination, alertness and experience to be brought to bear on the problems of exposition and interpretation. While Prof. Hutton's remarks were generally appreciated, it seemed clear from the brief discussion which followed that the effective communication of scientific and technical information demands not merely much skill on the part of the research worker and information officer but also a considerable improvement in the general standard of education and scientific training of the average business executive himself. An evening session at which Dr. L. J. Comrie, of the Scientific Computing Service, Ltd., presented a paper on "Machines and Tables" closed the proceedings on September 14.

The opening session on September 15, over which Mr. A. E. Cummins presided, was given over to a symposium of papers on some aspects of documentation in Europe to-day. Although short papers by John Ansteinsson on special library facilities in Norway, by Dr. F. Steggerda on the present position of information services in the Netherlands, by Dr. Erik Hernlin on the technical information service in Sweden, by W. Janicki on the Swiss Centre of Documentation, and by J. Wyart on scientific and technical documentation in France were circulated in advance and not read at the Conference, quite inadequate time was allowed for discussion on present conditions in Germany. If the first paper at this session, by Mrs. J. Lancaster-Jones, on "Some Aspects of the Demand for British Scientific and Technical Books for Europe", could be allowed as a contribution to the particular theme under discussion, Miss Esther Simpson's account of the Society of Visiting Scientists seemed irrelevant, and the Conference's organisers failed to gauge the strength of the desire for full information about the position in Germany, especially from British observers. In the absence of Mr. Ronald Fraser, of the Control Commission for Germany and Austria, present conditions in Germany were described by Colonel P. K. Blount, who had just returned from Germany for the purpose, and by Mr. K. Garsides. It would be impossible to do justice to either speaker's contribution here by attempting to summarize their account of the position of the university and technical libraries in the British Zone, beyond the statement that roughly some fifty per cent of the holdings of books in both British and American zones have been destroyed. As regards periodicals, little was added to the picture of chemical publications given by Dr. Conant in his report to the American Chemical Society, except to indicate some better prospect of the continuation of "Beilstein's Handbuch". Colonel Blount indicated that British policy favours the resumption of old, rather than the initiation of new, periodicals. The general impression left by the papers themselves, by the chairman's own contribution and by the whole of the lively discussion, was that far too little has been done to secure for Great Britain either books or sets of periodicals published in Germany during the War, and that the energy of the Library of Congress Bureau and other American activities have now left the field bare. Dr. Hutton cited examples of action taken by the Cambridge University Library which enabled that Library to complete its holdings of the German periodicals to which it had subscribed in 1939, and similar action may have been taken by other British libraries. A resolution moved by the chairman was unanimously adopted, urging the Council to give close consideration to the whole position with the view of urging appropriate action on the British authorities. Beyond this, however, the session gave some disconcerting and melancholy evidence of the obstacles that yet exist to the free interchange of knowledge through the medium of print.

At the afternoon session, over which Mr. E. H. Lindgren presided, Mr. Colin Dean described the organisation of the Central Film Library, and during the session there were shown the films "Library of Congress" and "Book Bargain". The final session, when Dr. J. E. Holmstrom presided, was devoted to a discussion on technical dictionaries and glossaries, which was introduced by Miss M. Gossett.

RE-OPENING OF THE GEOLOGICAL MUSEUM, SOUTH KENSINGTON

HE Geological Museum at South Kensington was re-opened on September 18 after being closed for seven years. From 1935, when the new building in Exhibition Road was opened by the King, then Duke of York, until the outbreak of war, there were considerably more than a million visitors to the Museum, which is still the most modern and wellfitted of its kind in the world. Throughout the War the building was occupied by the headquarters staff of the London Civil Defence Region. The galleries were converted into offices; the more valuable exhibits were evacuated to North Wales, and the remainder were stored. Although a heavy bomb fell on the pavement near the main entrance, and another struck the Geological Survey and Museum offices at the west end of the building, no major structural damage was caused by enemy action; but a vast amount of repair and restoration work has been necessary, including some 15,000 sq. ft. of window and roof glazing.

The reconstruction of the exhibits has been taken in hand and has now proceeded far enough for the main hall to be re-opened to the public. Among the more