

suffice to say that there was no lack of material or of discussion. As the various sections met at the same hour, it was not easy always to decide which paper to miss, so that with a choice of good things one often wished, like Boyle Roche's bird, to be in two places at the same time. Of such papers as I managed to hear myself, I may mention Horn of Berlin on systematic entomology, Edwards on the phylogeny of nematoceros Diptera, the Aphid papers of Börner, Davidson and Munro, Pictet on parthenogenesis, Prell on Polyeder diseases of insects, Brun on the anatomy of the brain, and Jablonowski's papers in the Economic Section. To listen to Jablonowski "apnihilating time and tearing a passion to tatters" was one of the treats of the Congress. The wide appeal of the Congress will be gauged if in addition to the names already given I mention Handlirsch of Vienna, whom one was glad to see taking an active part again, Nuttall and Scott of Cambridge, Ettringham of Oxford, Carlier of Birmingham, Heymons, Schwartz and Schuberg of Berlin, Eckstein of Eberswalde, Reh of Hamburg, Everts of Holland, Johannsen of the United States, Lord Rothschild and Jordan of Tring (the Congress owed much to Jordan's organisation and committee work), Marshall and Neave of the Imperial Bureau of Entomology, Waterston and a worthy representation from the British Museum, Blendowski of Poland, Rennie from Scotland, Turati from Italy, Kryger from Denmark, and Monzen of Japan, and a naturally large representation of well-known Swiss entomologists. A special tribute must be paid to Dr. L. O. Howard, of the United States Department of Entomology. Always in a position to help and using his position to help, Dr. Howard has earned the gratitude of entomologists everywhere. Capable and kindly, always with the right word, and with tact as his middle name, Howard gives one the feeling that were there a dozen representative ambassadors like him in the political world, we would soon have, what some of us long for, the United States of Europe, each nation no longer at enmity with the other but working out its own salvation following the lines of its own culture and psychology. Certainly there was a spirit of friendliness and goodwill at the Congress, attesting that science has no limited boundaries but is international.

Much hard committee work was done during the week, and the Section on Entomological Nomenclature has so co-ordinated opinions from various sources that hopes are high for general agreement.

The nomenclature question is in some ways an appalling one to tackle, and it is surprising the amount of time and labour expended in trying to reach an international system that would be clear and consistent.

The position of systematic entomology and the status of the systematist in university and museum were also subjects of committee work, and the Congress passed resolutions that are satisfying. In the economic sections also, attention has been focussed on the need for a recognition of the deeper problems underlying entomological research, and the Congress passed the following resolution: "The Congress considers it essential that the problems underlying Applied Entomology should be studied, and desires to impress upon Governments and Institutions concerned with investigations in Applied Entomology that time must be devoted to Systematic Entomology and fundamental research, such as Insect Physiology, Ecology and Pathology, since only by the study of these can insect control be placed on a sound basis."

This report is already long else one would have liked to mention some of the more humorous features of the week's meeting. Only one can be mentioned. A steamer heavily laden with the members of the Congress, in a sail round Lake Zurich, reached a certain little town at dinner-time. "The Assyrians came down like a wolf on the fold," or, entomologically, the locusts swarmed ashore to find that the village Chief of the Commissariat had blundered and food failed. But this was a meeting of biologists, and soon was seen in practice Natural Selection working through the struggle for existence and the survival of the fittest—the badge of the fit taking the guise of half a sausage. Whether the raiding habits developed in the struggle will become an acquired character time alone can show. One is glad to add, however, that as opposed to "Nature red in tooth and claw" the co-operative and ethical aspect of the struggle for existence received due illustration.

On the evening preceding the close of the Congress a banquet was held and every one enjoyed the night's social leisure. On the last day of the Congress two papers were read and the Congress then resolved itself into a Business Meeting. The president was heartily congratulated on a highly successful meeting.

Several extra excursions were arranged to follow the close of the Congress, e.g. to the Rigi Summit and the Jung Frau. R. STEWART MACDOUGALL.

### Lathyrism.

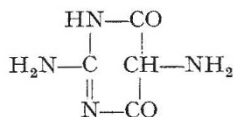
OF the chronic diseases which are directly related to the food supply and only indirectly connected with the presence of infective agents, most attention has in recent years been paid to that group in which the symptoms are due to the *deficiency* of some element in the diet, more especially that of one of the vitamins; scurvy, beri-beri, and probably rickets are among the diseases in this class. The other group, of which ergotism is the best known example, is due to the *presence* in the food consumed of small quantities of some poison, which after prolonged administration affects various organs of the body with the production of symptoms. The chronicity of the disease distinguishes this group from cases of acute poisoning due to bacterial products taken with the food or to the ingestion of some well-known poisonous substance.

The occurrence of lathyrism, which has been met with in India and in countries bordering on the Mediterranean, has been for long ascribed to the consumption of the seeds of pulses of the genus *Lathyrus*. In India the seeds of *Lathyrus sativus*, known in the vernacular as *khesari*, occupy a large

place in the diet in certain districts, in which also a form of paralysis is frequently seen, especially among those who utilise the pulse as the staple article of their diet. L. A. P. Anderson, A. Howard, and J. L. Simonsen (*Indian Journ. Med. Research*, 1925, vol. 12, p. 613) have recently conducted an investigation into this disease, from the results of which certain important conclusions can be drawn. At the outset of their work, the investigators recognised that the crop of *Lathyrus sativus* is scarcely ever grown in pure culture, but is frequently contaminated with various weeds; the seeds of one of these, the vetch *Vicia sativa*, L. var. *angustifolia*, were present in every sample of *khesari* obtained from districts in which lathyrism is common; attention was thus attracted especially to this weed, which is known in the vernacular as *akta*. As the result of both chemical analysis and feeding experiments with ducks and monkeys, the important conclusion was reached that pure *khesari* seeds contain no alkaloids; in fact they form a nourishing diet for these animals.

Quite different results were obtained with the seeds

of the vetch *akta*. Chemical analysis has confirmed the results of previous investigators; at least two glucosides are present; one vicianin, closely related to amygdalin; the other, vicine, yielding on hydrolysis  $\delta$ -glucose and the base divicine. The latter is an oxy-amino derivative of pyrimidine with the formula



Animal experiments have shown that divicine sulphate or hydrochloride is definitely toxic; doses of 0.6 mgm. per gm. body weight injected subcutaneously into young guinea-pigs produced convulsions lasting for about an hour, followed by paralysis and death in a few hours; post-mortem examination disclosed congestion of many of the organs, especially the central nervous system, and a peculiar rose-pink staining of the medulla of all the bones; this colour is the same as that assumed by solutions of divicine hydrochloride on exposure to the air, and its occurrence is considered by the authors to be evidence that the base is actually absorbed after injection. Injections of vicine or vicianin in similar amounts produced no ill effects which could be attributed to the substance injected; the experiments do not exclude the possibility that larger doses may be harmful or that if vicine is taken

with the food it may be hydrolysed into glucose and divicine during digestion.

The feeding experiments with ducks and monkeys also appear to be almost conclusive. In the case of the former, only birds on a diet containing *akta* have shown any symptoms, and the majority of those on these diets have been affected. The syndrome is characteristic, the symptoms being referable to an affection of the nervous system and including ataxia and paresis; early death is the rule. The incidence of symptoms in the case of monkeys on diets containing *akta* has not been quite so general, and the symptoms themselves have usually been less well defined, but in every case they can be referred to a lesion of the nervous system; no characteristic symptoms have been shown by any animal on *khesari* unless *akta* was also present in the food. In neither case are the symptoms those of typical lathyrism in man, although some of those occurring in the monkeys have been observed in human beings. But so frequently do the effects of similar agents differ in animals and man, that the difference observed here seems to be no objection to the application of the authors' results directly to the latter. Thus the important conclusion is reached that lathyrism is due to the consumption of the seeds of the vetch *Vicia sativa*, a weed which frequently contaminates the crop of the pulse *Lathyrus sativus*. Hence it should be possible to exterminate the disease by ensuring that the crop is grown pure.

## The Museums Association.

### ANNUAL CONFERENCE.

THE thirty-sixth annual conference of the Museums Association was held at Exeter on July 6-11, when more than 120 delegates attended. A civic welcome was extended to the delegates by the Mayor of Exeter. The president of the Association for the year 1924-25 was Mr. F. R. Rowley, the Royal Albert Memorial Museum, Exeter. The president in his address<sup>1</sup> gave a brief résumé of the museum movement in Exeter, and traced the development of the Museum from its small beginnings more than a century ago. He then discussed the question of a Royal Commission on museums. In pressing the claims of the provinces to a wider measure of support, he said they are actuated by no spirit of antagonism to the claims for increased expenditure which is being advanced by museums in the metropolis. Following on this he dealt with the wasteful destruction of wild life which threatens the very existence of some of our indigenous plants and animals.

Mr. Robert T. Jackson, of Peterborough, U.S.A., read a paper on "Ink and Paper for Museum Labels," giving his experiences over a long period on this subject. Major Stanley S. Flower contributed a paper and opened a discussion on "The Scientific Value of Small Aquaria." He emphasised the value of keeping data with regard to the animals kept in small aquaria, as much information about the longevity of these animals might thereby be obtained.

A paper on "Botanical Modelling for Museum Purposes" was read by Mr. W. E. Mayes, Leicester. He described in detail the process of modelling various specimens and showed examples of his own work in this connexion. Dr. F. A. Bather discoursed on "A Cargo of Notions from America," and described in detail the system adopted in American museums to aid visitors in their survey of the various departments. He emphasised the fact that the museums in the United States are far ahead of those in England

in the use of electric light for the lighting of museum cases. Mr. W. Stanley Lewis, head of the Department of Geography in the University College of Exeter, read a paper on "The Place of Museums in the Teaching of Geography." He suggested that good might result from a conference between such bodies as the Museums Association and the Geographical Association. The last paper was by Mr. E. Rimbault Dibdin, who discussed "The Proper Function of a National Gallery." He remarked that the authorities of the National Gallery complain of lack of space, but he considered that it would be better if the Gallery was given up wholly to foreign art and all British pictures were transferred to the British Gallery at Millbank.

Several trade exhibits were displayed during the Conference as well as exhibits by individual members. Of exceptional interest was a special exhibit of Old Exeter and Devonian Silver of the sixteenth, seventeenth and eighteenth centuries. The social side of the conference was not neglected. On Tuesday evening the Mayor gave a reception to the delegates at the Royal Albert Memorial, while the local committee entertained the delegates to lunch. The local programme included a visit to the Exeter Historical Museum and the Cathedral, where a short organ recital was given by Dr. E. Bullock. The party was afterwards conducted over the Cathedral. The delegates also paid visits to places of interest in the city. Miss M. Tothill, the curator, addressed the party on the St. Nicholas Priory, and an inspection was made of the Hall of the Weavers, Fullers and Shearmen, the Hall of the Vicars Choral and Bampfylde House. An address on the city muniments and regalia was delivered by the Town Clerk (Mr. H. Lloyd Parry) in the Guild Hall. An excursion took place to Bradfield, the home of the Waldron family, by invitation of Commander and the Hon. Mrs. Adams, while the Sheriff of Exeter entertained all the delegates at a garden party in the Rougement Gardens.

<sup>1</sup> The presidential address and the papers and discussions will be published in the *Museums Journal*, commencing August 1925.