into bearing several years in advance of mangosteens grown on its own roots, but it thrives exposed to a long dry season. Therefore, by the use of *Bunag* as a stock, it would appear feasible to extend the culture of the mangosteen over large areas where for climatic reasons this hitherto has been impossible.

P. J. WESTER

BALLSTON, VIRGINIA

QUOTATIONS

THE OXFORD MEETING

THE personality of the Prince of Wales as President, the amenities of Oxford, and the excellent arrangements made by the university and the city have all combined to make the meeting of the British Association, which ended recently, a conspicuous success. Even the copious reports of the daily proceedings sent by our correspondents gave an incomplete record of the multifarious activities of the sections. We have commented more than once on the disadvantages of division into thirteen concurrent sections, some of which even had further subdivision; but at least it has the merit of giving a wide display of the scope of modern science. The president in his address, almost by way of warning against any hasty judgment, reminded his hearers that theoretical research was often far in advance of practical application, and that even great men of science had sometimes under-estimated the implications of statements made to meetings. Lord Balfour, in his epilogue on the first evening, recalled that the last meetings at Oxford and at Cambridge had each been quickly followed by an efflorescence of physical discovery, and prophesied a similar consequence of the meeting this year. Sir Oliver Lodge, although admitting that he did not speak for the general body of science, suggested that the great advance would be an extension of the methods of science into the realm of the spiritual. But it may be that the next important discovery was really foreshadowed in the meeting of the Chemical Section on Tuesday. Hitherto the chemical element helium, although believed to be a constituent of all the elements above it in the scale, has refused all attempts of the laboratory to make it enter into combination with any other element. Mr. J. J. Manley explained a long series of experiments, conducted by himself, which pointed to a combination of helium with mercury and the formation of a "helide of mercury." This startling announcement, admitted to be as yet tentative, was said to have received the benediction of Professor Soddy, than whom there is no higher authority, and may well prove the starting-point of a new avenue to knowledge. Apart from this the work of the association at Oxford, both in theoretical and in applied science, was of a high order, and there were fewer than usual of the rather foolish or feeble communications which are sometimes accepted out of kindness.

On principle and from personal knowledge, the Prince of Wales in his address urged the advantage of close relations between science at home and science in the distant parts of the empire. It was an opportune comment, because the association has had to consider an invitation from the South African Association for the Advancement of Science, with the concurrence of General Hertzog, to hold the 1929 meeting in South Africa. The General Committee at each of its three meetings discussed the proposal, and on Tuesday evening instructed the Council to make the requisite inquiries as to date, period of absence from this country, cost to individual members, and general finance. No more could have been done for the present, but it is clear that the association has decided in principle to accept the invitation provided that the details can be adjusted. Naturally there are difficulties, but there are three years in which to meet them. July is the most convenient month for South Africa, since her universities begin their sessions in August, whilst our sessions linger well into July. But a compromise could be arranged, institutions and individuals here being released a little earlier, there beginning a little later. Those who can not spare the time for six weeks at sea might bear in mind that in all probability by 1929 it will be possible to go from London to Johannesburg in a week by aeroplane, certainly at no greater cost than that of a cabin passage by sea. South Africa is generous and hospitable, and—as on the former visit in 1905—the Government is likely to give free passes on the railways and the steamship companies to reduce their rates. It is true that, if the British Association holds its annual meeting in South Africa, there can not well be another during the same year in Great Britain without robbing both of some of their authority and their dignity. But, when all these temporary disadvantages have been weighed, there can be no doubt that a South African visit should prove a permanent advantage to science and to the empire.—The London *Times*.

SCIENTIFIC BOOKS

CONCERNING REPTILES AND FROGS

Reptiles and Amphibians: Their Habits and Adaptations. By THOMAS BARBOUR, Curator of Reptiles and Amphibians in the Museum of Comparative Zoology at Harvard College. Illustrated in part by George Nelson, Preparator in the Museum of Comparative Zoology. Boston. Houghton Mifflin Co.

BARBOUR'S "Reptiles and Amphibians" is a model of a popular treatise in natural history. It is throughout

accurate, clearly written, with as few technicalities as the subject permits. Moreover, admirably illustrated, and withal well printed. Every phase of reptile life is fully treated from the origin of the class estimated as some ninety million years ago (its forebears, the amphibia, three or four millions of years earlier), to the last note on the song of the tree frog. It concludes with a brief but wise commentary on Darwinism. Barbour remembers, what some evolutionists have forgotten, that the origin of species is an outdoor matter, in which nature takes her own time.

The numbers of kinds of these creatures, the world over, is far beyond the usual conception. Barbour estimates 6,875 living species; 50 of them crocodiles, 225 turtles, 2,300 snakes, 2,500 lizards, 1,500 frogs and toads, and 50 coecilians, blind, worm-like creatures. With the rest, one singular lizard of New Zealand, *Sphenodon,* of ancient type in which the ancestral middle eye (pineal) on top of the head is still extant.

Every phase of reptilian life is well considered. Some of the most interesting chapters relate to the poisonous snakes, the nature of their poison, and the methods of giving immunity through dilution of venom.

BERING'S VOYAGES

Bering's Voyages. An Account of the Efforts of the Russians to Determine the Relations of Asia and America. By FRANK A. GOLDER, in two volumes. Vol. II, Steller's Journal of the Sea Voyage from Kamchatka to America and Return on the Second Expedition, 1741–43.

A REMARKABLY valuable work, from the standpoint of geographical history as well as of natural science, is the record of Bering's voyages by Professor Frank A. Golder, of Stanford University. The first of these two volumes contains an annotated translation of the official reports. The second volume contains the Journal of Georg Wilhelm Steller, the gifted naturalist of the second expedition. This is especially interesting for the spirited narrative itself, and for the first account of "the four great beasts," Sea Lion, Sea Bear (Fur Seal), Sea Otter and Sea Cow, the last named now extinct. This journal is translated and in part annotated by Leonhard Stejneger, of the U. S. National Museum, whose own studies in this region have been of the highest importance.

American Geographical Society, Research Series, No. 2. W. L. G. Joerg, Editor. New York, 1925.

DAVID STARR JORDAN

SHERBORN'S "INDEX ANIMALIUM"

EVERY zoologist regards the accurate naming of animals as a matter of far-reaching importance. Sooner rather than later he must even refer to original papers or to complicated nomenclators, and find out whether his beasties have been described accurately, and whether names given to them have not been earlier used for entirely different creatures. It was the idea of simplifying this universal labor which led the English naturalist, Charles Davies Sherborn, to undertake the Herculean labor of preparing an index which should put an author's finger upon all species and genera hitherto described.

Beginning thirty years ago, Mr. Sherborn has overhauled all zoological literature from Linnaean beginnings to the year 1850, indexing (*mirabile dictu!*) some 27,600 works. His plan was to complete in an encyclopedic way the first century of zoology and to include, naturally, references to animals, recent and fossil, in the writings of all countries.

Thus far ten parts of his work have appeared, in all comprising 2,570 pages. Part I was published in 1902 by the Cambridge University Press: thereafter the work was taken up by the trustees of the British Museum. At the close of the present section (part X) the literature dealing with the genera and species has been accounted for from 1801 to 1850, up to the word *funereus.* The eleventh part, which will complete the letter G, will appear in December. The manuscript cards for the remaining letters are being revised, but from the nature of the task five or six years more will probably be required to complete the publication of an epoch which witnessed the description of the greatest number of animals. When this turning of the road has been reached, Mr. Sherborn plans to cease his labors and let the later literature be worked out by his successor, if such a one may be found. It would not be unfair to Mr. Sherborn to note that this vast work has been carried out largely as a labor of love.

BASHFORD DEAN

THE METROPOLITAN MUSEUM OF ART

SPECIAL ARTICLES

LOSSES IN TROUT FRY AFTER DISTRIBUTION

ON seining a quarter of a mile of Forbes Brook, Prince Edward Island, Canada, there were found, October, 1925, trout, yearlings and older, 319; fundulus, 82; salmon parr, 33; stickleback, 16, 152; a