

finer attention to the titles; but they would not disappear, as the examples show, while the value of the catalogue would be greatly reduced. Of course, the difficulties are due largely to the unorganized condition of the science; yet it does seem practically certain that any single anthropologist, well abreast of the science and working constructively, might have evolved a homogeneous and consistent scheme, by which anthropologic cataloguing would be facilitated rather than burdened.

Inspection of the scheme raises the question whether it is designed primarily for the use of librarians, or for the convenience of scientific workers; and the arbitrary features at once suggest that the users contemplated cannot be investigators, of whom the great majority are accustomed to methods of gaining and maintaining acquaintance with scientific literature quite unlike those embodied in the scheme. These usage-honored methods are epitomized in the systematic lists of contents and (more especially) the indexes with which respectable scientific books are provided. Now the character of current indexes of anthropologic books (particularly those prepared by authors themselves) indicates that the ideas of investigators are crystallized about certain nuclei, which are essentially denotive—names of men, names of books, names of races or nations or tribes, names of places, etc.; there is relatively slight attempt, so far as the indexes show, to crystallize ideas about necessarily vague connotive nuclei. It is true that the typical list of contents is much more largely connotive than the typical index; but even here there is a strong tendency toward arrangement in terms of trenchant concepts, *i. e.*, in denotive terms. What is true of anthropologic literature is measurably true of the literature of other branches of science, though most or all of the other branches are so well organized as to yield larger series of specific

terms habitually used in denotive sense. The scientific makers and users of indexes are concerned with the essentials of scientific literature, rather than with the mere externals which appeal to the librarian *per se*; and the weakness of the scheme herein noted would seem to lie in the fact that it gives no promise of guiding or aiding the investigator in any useful way, howsoever convenient it may be as a guide to book-handlers concerned only with the external aspects of anthropologic publications.

The final test of the value of any catalogue is found in the practical operation of the law of supply and demand, with respect to both raw material and finished product. As bearing on this test, it may be observed that no working anthropologist in the Bureau of American Ethnology would seriously undertake the cataloguing of anthropologic literature, or any branch thereof, in accordance with the extravagantly complex scheme of the Royal Society Committee, and that the library of the Bureau could not be arranged under it; also that, while the office would probably subscribe for author cards and the lustral book-catalogue, the subscription for the latter would be made much more freely if it were a simple author list. And the arbitrary symbols on cards and pages would be regarded merely as trivial blemishes, unsightly but not necessarily mischievous.

W J McGEE.

THE ROYAL SOCIETY OF CANADA.

THE eighteenth annual meeting of the Royal Society of Canada was held at Ottawa from May 22d to 26th. Fellows from the provinces of Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia were present. The Council met in the office of Sir John Bourinot, House of Commons on Monday, and Tuesday morning the regular work of the Sections began. The readers of SCIENCE will recall to mind that

this Canadian Society is divided into *four* sections, viz.: Section I., French poetry, literature, history, etc.; Section II., English literature, history, poetry, etc.; Section III., Mathematical, physical and chemical sciences; Section IV., Geological and biological sciences. Among the more interesting papers read before this Society, in the field of letters and science, the following are noticed: 'First Three Years in Acadia under the English Régime,' by P. Gaudet; 'Responsible Government under Lord Sydenham,' by Hon. Jos. Royal; 'Quebec in 1730,' by Abbé Gosselin; 'Literary Development in Canada,' by Hon. J. W. Longley, Attorney General of Nova Scotia; 'The Builders of Nova Scotia,' by Sir John Bourinot; 'Migration from the Canary Islands to the Eastern Coast of America,' by John Campbell, LL.D. This paper indicates the presence of extensive Celtic and Basque elements in the languages of Peru, and traces these to the Canary Islands, where history finds Celtic colonists, and recently discovered inscriptions, presented in the paper, reveal the existence of petty Iberic kingdoms alongside of them. The Celts came from the Berber area of north-western Africa, and the Iberians from Spain. As the Toltecs and Olmecs, these Iberic and Celtic colonists from the Canaries entered Mexico in the beginning of the eighth century A.D., and when expelled, in the middle of the eleventh century, they founded the Peruvian Empire of the Incas, but tradition indicates that a portion of the Celtic crews from the Canaries landed in Florida, and that their descendants, after the time of European colonization, became known as Welsh Indians. Linguistic enquiries tend to trace the survivors of these to Arizona and California in the west, and to the almost extinct Adaizans of Louisiana in the east.

'Hochelagans and Mohawks, a Link in Iroquois History,' by W. D. Lighthall, M.

A.; 'The Valley of the Ottawa, 1650-1700,' by Benjamin Sulte.

'Historic Places and Events in New Brunswick,' by Professor W. F. Ganong, Ph.D., M.A.; 'The Distinctive Characteristics of the Japanese and Chinese People,' by Professor E. Hamilton Sharp (of Tokio University).

'The Synchronism of Terrestrial Magnetic Disturbances and Unusual Excitation in the Trails of Comets,' by Arthur Harvey; 'Illustrations of Remarkable Secondary Tidal Undulations on January 1, 1899,' by W. Bell Dawson; 'Canadian Geological Nomenclature,' by Dr. R. W. Ells, President of Section IV.; Studies on Cambrian Faunas No. 3, ditto No. 4, including the 'Upper Cambrian Fauna of Mt. Stephen, British Columbia,' and 'Fragments of the Cambrian Faunas of Newfoundland,' and by the same author 'The Etcheminian Fauna of Smith's Sound, Newfoundland,' all by Dr. G. F. Matthew. The Mt. Stephen fossils are remarkable for their excellent mode of preservation. The author correlates the genera with European forms of Upper Cambrian age. New fossils from Newfoundland are described and recorded, others redescribed. The zoological position of the Hyolithidæ is discussed, and the author concludes that they should be classed with the Tubicolous Worms. Figures and descriptions will accompany these papers.

'Notes on some additions to the Molluscan Fauna of the Pacific Coast of Canada,' by Rev. G. W. Taylor, M. A., of Nanaimo, B. C. The author gives notes on *forty* species not hitherto recognized.

'Origin and History of some new varieties of Wheat produced at the Dominion Experimental Farms,' by Dr. William Saunders, Director. The most promising cross-bred varieties of wheat produced during the last ten years at the Experimental Farms of Canada are discussed at length. Re-

markable success was obtained in the experiments. Particulars are also given as to how these varieties compare with the *standard* sorts in cultivation and notes on their adaptability to the different climates of Canada.

'The Scientific Work of Professor Charles F. Hartt,' by Professor G. U. Hay, M.A., Ph.B. A tribute to one of Canada's most illustrious sons who laboured successfully in the field of Geological Science, first in Canada, then in Cambridge and later in Brazil, where he fell a victim to yellow fever, in 1878, at Rio Janeiro, where he held the post of Director of the Geological Commission.

'Recent additions to the Injurious Insects of Canada,' by Dr. James Fletcher, F.L.S., etc. This paper treats of the several injurious species which have attracted public attention by their ravages upon crops of all kinds for the last twenty years. It will form a most practical as well as scientific treatise on a subject of vital importance to Canada.

'Catalogue of Canadian Proctotrypidæ,' by W. Hague Harrington, Esq. Two hundred species are enumerated, most of which come from Ottawa and its vicinity. Descriptions of new species are given and notes on the habits of several species added.

'On the Origin of the Silvery Appearance in the Integument of Fishes,' by Professor E. E. Prince, B.A., F.L.S., and 'Some Chitinous Elements in the Larval Skeleton of Fishes which appear to be Primitive,' by Professor E. E. Prince, also form two interesting contributions to the science of biology.

'The Geology of the more important Cities in Eastern Canada' is the title of a paper by Dr. H. M. Ami. Geological tables have been drawn up for St. John (New Brunswick), Quebec City, Montreal, Ottawa, Kingston, Toronto, Hamilton and London.

Professor T. Wesley Mills, of McGill Uni-

versity, entertained Section IV. with an intensely fascinating subject, 'An Investigation of the Physiology of the Brain of the Bird,' together with 'An Examination of some points in the Psychology of that Animal.' Two pigeons whose brains had been almost entirely removed and wounds healed have been subjected to close examination and their behavior noted. Upwards of four months have elapsed since the operation was performed, and Dr. Mills awaits further developments before submitting the healed parts to a microscopical examination.

On the evening of the 23d of May—an evening with our Canadian poets and writers was held with immense success. Dr. W. H. Drummond, of Montreal; Wilfred W. Campbell, of Ottawa; W. A. Frazer, of Toronto; W. J. Phillip-Woolley, of British Columbia; Attorney-General Longley, of Halifax, Nova Scotia; Duncan C. Scott, of Ottawa; Dr. Louis Fréchette, Laureate of the *Académie de France*, of Montreal, and Revs. Frederick G. Scott, of Drummondville, Quebec, and Archbishop O'Brien, of Halifax, took part.

At the public meeting Professor Rutherford, assisted by Professor John Cox, of the Physics Laboratories, McGill University, described and illustrated 'Wireless Telegraphy' to a large audience with marked success.

H. M. AMI.

OTTAWA, June, 1899.

SCIENTIFIC BOOKS.

The Anatomy of the Central Nervous System of Man and of Vertebrates in General. By PROFESSOR LUDWIG EDINGER, M. D. Translated from the Fifth German Edition by WINFIELD S. HALL, PH.D., M. D., assisted by P. L. HOLLAND, M.D., and E. P. CARLTON, B.S. The F. A. Davis Co. Pp. 446. Figs. 258.

Few books could be more welcome in an acceptable English dress than the last edition of Edinger's 'Vorlesungen ueber den Bau der Ner-