

species appear to be prepotent over those of more recent origin. This may be understood if we represent the union as $AA + AB$, both contributing the same ancestral characters, and one the same modern ones as the ancestral.

A very interesting point brought forward by Professor Ewart is, that in some cases reversion may lead to a sort of rejuvenescence. For instance, "If there are any puppies in a grossly imbred litter that take after a good ancestor several generations removed, they invariably prove the strongest and best." If there is any truth in the idea that in man physical vigor is correlated not infrequently with a certain rusticity of mind, it may be that the phenomenon is one of a similar kind.

T. D. A. COCKERELL.

EAST LAS VEGAS, NEW MEXICO.

Geological Survey of Canada, General Index to the Reports of Progress, 1863 to 1884. By D. B. DOWLING, B.A.Sc. Ottawa. 1900. Pp. 475.

In the terms of the prefatory note by Dr. G. M. Dawson, Director of the Geological Survey, "the present General Index begins with the volume of 1863 for which an entirely new index has been made, and embraces the succeeding reports to that of 1882-83-84 inclusive. It covers sixteen volumes and two short summaries, making in all 6,585 pages of text to which more than 31,000 entries are given. It thus provides a ready means of reference to practically the entire body of observations published by the Geological Survey up to the year 1884."

From 1885 to the present time, 'Annual Reports' have been issued by the Department, each of which is separately indexed. The 'General Index' just issued forms publication No. 638, of the Geological Survey and contains 475 pages of text divided into three parts, viz:

Part 1. Districts described in the several reports.

Part 2. Special Examination.

Part 3. The General Index.

These include: (1) The reports analyzed geographically and arranged under Provinces, Counties and Districts, so that under any county or district in a province, a list of refer-

ences to reports, arranged in chronological order, is given. (2) Ores, rocks, minerals or fossils, that have been subjected to assay, analysis, microscopical examination, that were scientifically described. (3) The general index of which the following are the principal points: the arrangement under a reference to a place being usually chronological, while under a subject references will be found alphabetically arranged, or in case of common occurrences, as of iron, fossil, etc., localities may be grouped under provinces.

The 'Reports of Progress of the Geological Survey of Canada' and the 'Annual Reports' of the same contain a vast amount of useful and practical information on the mineral and other natural resources of the Dominion, as do also the maps which accompany these reports, giving in a graphic form the leading geological features of the territory included. This 'General Index' is therefore hailed with delight not only by all who are interested in the resources of the great Dominion as a work which gives ready reference to the various economic products in a series of volumes containing 6,585 pages of text, but also by all students in science who may desire to carry on further researches in the various districts comprised in the reports treated. The amount of time henceforth to be saved in searching for information on the thousand and one points referred to in each of the volumes indexed cannot be over-estimated, and all persons into whose hands this index falls will bless its projector as well as author. An index to all the geological maps referred to in the Reports may be found under the word 'Maps.'

Mr. Dowling's index will also be of special value for bibliographic references, as the work performed by various officers of the Geological Survey from 1866 to 1885 falls under the name of each officer; and, as the readers of the *Ottawa Naturalist* are aware, in Vol. XIV., No. 6, of that Magazine for September, 1900, Mr. Dowling gave a chronological index to the field work done by the officers of the Survey from its commencement to 1865, so that there is now available for ready reference a complete history of geological work done in Canada from 1843, the year when the Geological Survey of Can-

ada was instituted, to the present time. The price of the above is fifty cents. Copies may be obtained from the Librarian of the Geological Survey.

H. M. AMI.

THE CROTONS OF THE UNITED STATES.*

THE United States species of *Croton*, as represented in the principal herbaria of the country, have been monographed by A. M. Ferguson, formerly connected with the Missouri Botanical Garden, now at the University of Texas, whose paper, accompanied by ample analytic keys, and illustrations of all but the most commonly figured species, forms a rather thick octavo paper to constitute a part of the forthcoming 'Twelfth Annual Report of the Missouri Botanical Garden,' where the work was done. In addition to keys and synoptical headings, a citation of necessary synonymy and specimens examined, combined with short but clear descriptions, appears to ensure the easy understanding of the species of a genus that has always afforded a fair number of puzzles to the botanist.

PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE Proceedings of the 49th meeting of the American Association for the Advancement of Science, edited and published by the permanent secretary, L. O. Howard, make a handsome volume of 500 pages. The volume has as a frontispiece a portrait of the late Edward Orton, who, it will be remembered, died before he was able to give the address of the retiring president at the New York meeting. The volume contains as usual the lists of past officers, the constitution of the Association and lists of members and fellows. There then follow the address of the president, Mr. Grove Karl Gilbert, of the U. S. Geological Survey, and the proceedings of the separate sections, including the addresses of the vice-presidents. The volume concludes with the reports of the secretaries and of the treasurer. It is gratifying to note that the membership at the time of the New York meeting was 1,921, as compared with

* Ferguson, A. M. 'Crotons of the United States.' (Printed in advance from the Twelfth Annual Report of the Missouri Botanical Garden.) Issued February 16, 1901. Pp. 41, pl. 28.

1,695 the year before. One rather unexpected result of the change in the time of the meeting from August to June has been a delay in the publication of the volume. Immediately after the adjournment of the meeting the members separated widely for their summer vacations; those who did not go to Europe went into the field, and the secretaries of sections were among them. As a result it was impossible for the permanent secretary to get together the manuscript for a large part of the volume until after the return of the secretaries of sections and other members to their homes in the autumn. The volume was all in print, however, by December and would have been distributed before January 1st except for an accident in the bindery which again delayed the general distribution.

BOOKS RECEIVED.

Proceedings of the American Association for the Advancement of Science, Forty-Ninth Meeting, held at New York, N. Y., June, 1900. L. O. HOWARD. Easton, Pa., The Chemical Publishing Company. 1900. Pp. 409.

Lecithoblast und Angioblast der Wirbelthiere. WILHELM HIS. Leipzig, B. G. Teubner. 1900. Vol. IV. Pp. 328.

L'Année biologique. YVES DELAGE. Paris, Schleicher Frères. 1900. Pp. xxxi + 847.

Report of the Census of Porto Rico for 1899. LIEUT.-COL. J. P. SANGER. Washington Government Printing Office. 1900. Pp. 417.

Electric Lighting. FRANCIS B. CROCKER. New York, D. Van Nostrand Company; London, E. & F. N. Spon. 1901. Vol. II. Pp. vi + 505. \$3.00.

Anatomy of the Cat. JACOB REIGHARD and H. S. JENNINGS. New York, Henry Holt & Company. 1901. Pp. xx + 498.

SCIENTIFIC JOURNALS AND ARTICLES.

The Journal of the Boston Society of Medical Sciences for January 15th contains 'Notes on the Occurrence of *Anopheles Punctipennis* and *A. Quadrimaculatus* in the Boston Suburbs' by Theobald Smith, 'Notes on *Anopheles*' by Charles S. Minot, and 'Notes on Mosquitoes' by F. P. Gorham. E. R. Le Count presents a 'Report on the Histologic Changes found in the Tissues of Animals Inoculated with *Diplococcus Scarlatinæ* (Class),' stating that they differ from those noted in man by Pearce in