eral theory has been applied in numerous directions. The reading of this volume will give a very much more comprehensive conception of the significance of this new theory and the applications of various lines of evolution, than can be obtained from the reading of isolated papers on the subject which have hitherto appeared. Indeed, Professor Baldwin's discussion of this theory and its application in various lines is a real contribution to the general subject of evolution. No one who is interested in the modern doctrine of evolution and the method of the development of animals and plants can afford to miss reading this new work of Professor Baldwin's, for it throws a light upon many phases of the descent theory which are left in the dark by both the Darwinian and the Lamarckian schools. Although Professor Baldwin is not the sole originator of this conception, and has given due credit to the two who independently conceived it with him, he certainly has developed it more carefully than any other, and this new work of Baldwin's must be regarded as one of the positive contributions to the discussions of the evolution doctrine.

The other parts of the work, though interesting and suggestive, are, at least to the general biologist, less significant and instructive than this careful elaboration of the theory of othoplasy, but may be especially recommended to those interested in the psychological phases of evolution.

H. W. CONN.

WESLEYAN UNIVERSITY.

SCIENTIFIC JOURNALS AND ARTICLES.

The Museums Journal of Great Britain contains a brief account of 'The Manchester Whitworth Institute,' a paper on 'The Descriptive Arrangement of Museum Collections,' by Frank C. Baker, dealing with that of the Chicago Academy of Sciences, and 'Notes upon the Haslemere Educational Museum,' by E. W. Swanton. This last is extremely interesting, describing a successful attempt to make a museum instructive at the minimum cost; the building covers 6,400 square feet and cost but £1,305. There are reprints of H. I. Smith's 'Methods of Collecting Anthropological Material' and of H. F. Osborn's paper on 'The Collecting and Preparing of Fossil Vertebrates.' Also there are the customary interesting notes.

The American Museum Journal has an account of 'Entomological Work in the Black Mountains of North Carolina' by Wm. Beutenmüller and an illustrated article on 'Collecting Flamingoes and their Nests in the Bahama Islands' by Frank M. Chapman, which gives a very clear idea of the breeding grounds of a flamingo colony. The lecture announcements are made. *The Guide Leaflet Supplement* is devoted to 'The Sequoia, a Historical Review of Biological Science' by George H. Sherwood. It is primarily a brief account of the specimen of Sequoia acquired by the museum and secondarily a review of the progress of science during the life of the tree, which was 1341 years.

The Plant World for September commemorates its fifth anniversary, by issuing a number comprising many more pages and plates than usual. It contains 'Extracts from the Note Book of a Naturalist on the Island of Guam,' by W. E. Safford; 'A Deciduous Tropical Tree,' by O. F. Cook; 'Our Vanishing Wild Flowers,' by L. H. Pammel; 'The Etymology of Columbine,' by E. J. Hill; and the second paper on 'The Origin of Plant Names,' by Grace S. Niles. There are the customary notes, reviews and briefer articles.

SOCIETIES AND ACADEMIES.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE fifty-second annual meeting of the American Association for the Advancement of Science, and the first of the 'Convocation Week' meetings, will be held in Washington, D. C., December 27, 1902, to January 3, 1903.

A meeting of the executive committee of the council (consisting of the general secretary, secretary of the council, the permanent secretary, and the secretaries of all the sections), will be held in the council room of the Cosmos Club at noon on Saturday, December 27.

The opening session of the Association will be held at 10 o'clock A.M., on Monday, January 3, in Lafayette Theater. Most of the sections and of the affiliated societies will meet in the buildings of the Columbian University.

Railroad Rates.—A rate of one fare and one third has been secured for all persons attending the meeting, and tickets may be purchased from December 15 to January 3, and will be accepted until January 15.

For all matters relating to the local arrangements, transportation, and hotel and boarding-house accommodations, address the local secretary, Dr. Marcus Benjamin, Columbian University, 1420 H Street, Washington, D. C., or consult the preliminary announcement which will shortly be mailed to all members. The hotel headquarters of the Association will be the Arlington Hotel ($4 per day, American plan). Other hotels, including the Ebbitt House ($2 per day, American plan), will be chosen as headquarters for several of the affiliated societies.

For information relating to the presentation of papers, members should address the secretaries of the respective sections. Titles and abstracts of papers should be sent to the permanent secretary.

Nominations to membership and letters relating to the general business of the Association should be sent to the permanent secretary at the address given below.

Members paying their dues before December 20 will receive their tickets by mail at once, and will thus save time in registering on their arrival at Washington, provided they bring their tickets with them. Do not forget to bring your ticket if you have already paid your annual dues for 1903.

The register for the Washington meeting will be open at 10 o'clock A.M., on Friday, December 26, at the general office of the local and permanent secretaries, in the library on the first floor of the main building of Columbian University, corner of Fifteenth and H streets, northwest.

L. O. Howard,
Permanent Secretary.

Cosmos Club, Washington, D. C.

The rough program is as follows:

MONDAY, DECEMBER 29, 1902.

Meeting of the council at 9 A.M. in the assembly hall of the Cosmos Club.

First general session of the Association at 10 A.M. at the Lafayette Theater. The meeting will be called to order by the retiring president, Professor Asaph Hall, U.S.N., who will introduce the president elect, Doctor Ira Remsen. Addresses of welcome. Reply by President Remsen. Announcements by the general, permanent and local secretaries. Agreement on the hours of meeting. Adjournment of the general session, to be followed by the organization of the sections in their respective halls.

Addresses of the vice-presidents in the afternoon as follows:

At 2:30 P.M.

Vice-President Hough before the Section of Mathematics and Astronomy.

Vice-President Weber before the Section of Chemistry.

Vice-President Derby before the Section of Geology.

Vice-President Culin before the Section of Anthropology.

Vice-President Welch before the Section of Physiology and Experimental Medicine.

At 4:00 P.M.

Vice-President Franklin before the Section of Physics.

Vice-President Flather before the Section of Mechanical Science and Engineering.

Vice-President Nutting before the Section of Zoology.

Vice-President Campbell before the Section of Botany.

Vice-President Wright before the Section of Social and Economic Science.

At this hour also will be delivered the address of the President of the Astronomical and Astrophysical Society of America, Professor Simon Newcomb.

The annual address of the retiring president, Professor Asaph Hall, U.S.N., will be given at 8 P.M.

SUCCEEDING DAYS.

The council will meet daily at 9 A.M., in the lecture room on the west side of the first

floor of the main building of Columbian University. At 10 A.M. a short general session will be held daily in the main lecture room on the first floor of the main building of Columbian University. The sections will meet daily immediately after the adjournment of the general session and from that time until 1 o'clock, and then after an intermission of one hour for luncheon, from 2 to 5.

On Tuesday evening the address of the president of the American Chemical Society, Professor Ira Remsen, will be given at 7:30 P.M. On Tuesday evening the public lecture of the American Society of Naturalists will be given at 8 P.M.

On Tuesday evening the smokers of the American Society of Naturalists and its affiliated societies will be held, and on Tuesday evening the Botanical Society of Washington will receive visiting botanists.

On Wednesday evening the annual dinner of the American Society of Naturalists will be held, and the dinner will be followed by the annual address of the president, Professor J. McK. Cattell. It is expected that the annual dinners of the American Chemical Society and the American Society of Geologists will be held on this evening.

On Thursday evening a public lecture, complimentary to the citizens of Washington, will be given under the auspices of the A. A. A. S. and the National Geographic Society. The subject will be 'Volcanoes of the West Indies,' and the lecturers will probably be Professor I. C. Russell and Professor Angelo Heilprin.

Following this lecture there will be the regular meeting of general committee of the A. A. A. S., including the council and one member from each section, to elect officers and decide upon the time and place of the next meeting.

The permanent secretary has been notified that the following societies will meet in affiliation with the Association at the Washington meeting:

The American Anthropological Association.—This association will hold its first regular meeting in Washington during Convocation Week in affiliation with Section H of the A. A. A. S. President, W J McGee; secretary, George A. Dorsey, Field Columbian Museum, Chicago, Ill.

American Chemical Society.—This society will meet in Washington on December 29 and 30. The headquarters will be the Arlington Hotel. The retiring address of the president, Dr. Remsen, will be given on Tuesday evening at 7:30. President, Ira Remsen; secretary, Dr. A. C. Hale, 352A Hancock street, Brooklyn, N. Y.

American Folk-lore Society.—This society will meet in affiliation with Section H of the A. A. A. S. President, George A. Dorsey; vice-presidents, J. Walter Fewkes, James Mooney; secretary, W. W. Newell, Cambridge, Mass.

American Microscopical Society.—This society will probably hold a business meeting on December 29. President, E. A. Birge, Madison, Wis.; secretary, H. B. Ward, University of Nebraska, Lincoln, Nebr.

American Morphological Society.—This society will meet in Washington December 30 and 31. President, H. C. Bumpus; vice-president, G. H. Parker; secretary and treasurer, M. M. Metcalf, Woman's College, Baltimore, Md.

American Philosophical Association.—This association will meet in Washington during Convocation Week, December 30 and 31 and January 1. Secretary, H. N. Gardiner, Northampton, Mass.

American Physical Society.—This society will meet in Washington during Convocation Week, in affiliation with Section B of the A. A. A. S. President, Albert A. Michelson; secretary, Ernest Merritt, Cornell University, Ithaca, N. Y.

American Physiological Society.—This society will meet in Washington, December 30 and 31. President, R. H. Chittenden; secretary, F. S. Lee, Columbia University, New York, N. Y.

American Psychological Association.—This association will meet in Washington December 30 and 31 and January 1. On Wednesday morning the association will hold a joint session with the American Philosophical Asso-

ciation. President, E. A. Sanford; secretary and treasurer, Livingston Farrand, Columbia University, New York, N. Y.

American Society of Naturalists.—This society will meet in Washington December 30 and 31. Members will register in the general registration room of the A. A. A. S. The public discussion will be held on the afternoon of December 31, and the public lecture will be held on Tuesday evening, December 30. President, J. McK. Cattell; vice-presidents, C. D. Walcott, L. O. Howard, D. P. Penhallow; secretary, R. G. Harrison, Johns Hopkins University, Baltimore, Md.

Association of American Anatomists.—This association will meet in Washington December 30 and 31. President, G. S. Huntington; vice-president, D. S. Lamb; secretary and treasurer, G. Carl Huber, University of Michigan, Ann Arbor, Mich.

Association of Economic Entomologists.—This association will meet in Washington December 26 and 27, the opening session will be held at 10 o'clock A.M. December 26. President, E. P. Felt; secretary, A. L. Quaintance, College Park, Md.

Astronomical and Astrophysical Society of America.—This society will meet in Washington during Convocation Week, in affiliation with Section A of the A. A. A. S. The address of the president, Professor Simon Newcomb, will be given at 4 P.M. on December 29. President, Simon Newcomb; secretary, George C. Comstock, University of Wisconsin, Madison, Wis.

Botanical Society of America.—This society will meet in Washington December 31 and January 1. President, B. T. Galloway; secretary, D. T. MacDougal, New York City.

Botanists of the Central and Western States.—This society will meet in Washington on December 30. Committee in charge of the meeting, John M. Coulter, University of Chicago; D. M. Mottier, University of Indiana, Bloomington, Ind.; Conway MacMillan, University of Minnesota, Minneapolis, Minn.

Geological Society of America.—This society will meet in Washington December 29, 30 and 31. Hotel headquarters will be the Ebbitt House. President, N. H. Winchell; vice-presidents, S. F. Emmons, J. C. Branner; secretary, H. L. Fairchild, University of Rochester, Rochester, N. Y.

The National Geographic Society.—This society will hold a meeting during Convocation Week, and is arranging to present a public lecture on the volcanoes of Martinique and St. Vincent on Thursday evening, January 2; also for one or more joint sessions with Section E of the A. A. A. S. for the presentation of scientific papers. President, A. Graham Bell; vice-president, W J McGee; secretary, A. J. Henry, U. S. Weather Bureau, Washington, D. C.

Naturalists of the Central States.—This association will meet in Washington December 30 and 31. Chairman, S. A. Forbes; secretary, C. B. Davenport, University of Chicago, Chicago, Ill.

Society of American Bacteriologists.—This society will meet in Washington January 1 to 3. President, H. W. Conn; vice-president, James Carroll; secretary, E. O. Jordan, University of Chicago, Chicago, Ill.; council, W. H. Welch, Theobald Smith, H. L. Russell, Chester, Pa.

Society for Plant Morphology and Physiology.—This society will meet in Washington during Convocation Week. President, V. M. Spalding; vice-president, B. D. Halsted; secretary and treasurer, W. F. Ganong, Smith College, Northampton, Mass.

Society for the Promotion of Agricultural Science.—This society will meet in Washington during Convocation Week. President, W. H. Jordan; secretary, F. M. Webster, Urbana, Ill.

Zoologists of the Central and Western States.—This association will meet in Washington during Convocation Week. President, C. B. Davenport, University of Chicago.

All members of affiliated societies, who are not members of the American Association for the Advancement of Science, are nevertheless requested to register at the registration desk of the Association, in the library on the first floor of the main building of Columbian University. The object of this

request is to endeavor to secure an approximate estimate of the number of scientific men in attendance at the Convocation Week meetings in Washington.

Officers of the local committee for the Washington meeting are:

President, Charles D. Walcott.
Vice-President, G. K. Gilbert.
Secretary, Marcus Benjamin.
Executive Committee, Marcus Benjamin, David T. Day, G. K. Gilbert, Gilbert H. Grosvenor, L. O. Howard, George M. Kober, W J McGee, C. E. Munroe, Chas. D. Walcott.

THE AMERICAN PHYSICAL SOCIETY.

THE autumn meeting of the American Physical Society was held at Columbia University on Saturday, October 25.

As has so often been the case in the past, the program was considerably more extended than was to be expected from the printed list of papers distributed before the meeting. Owing to some cause which it seems hard to explain, the titles of papers are frequently—I might almost say, *usually*—sent in too late for publication in the preliminary program. This fact cannot fail to have its effect, both on the discussion of the papers presented and on the attendance at the meeting. It is especially unfortunate for members residing at a distance, for whom attendance at the meeting means a considerable sacrifice of time.

The first paper presented was by A. W. Ewell on 'Accidental Rotatory Polarization.' Mr. Ewell had found in earlier work that certain jellies when subjected to twist are brought into a condition which enables them to rotate the plane of polarization of light traveling parallel with the axis of twist. The present paper described experiments along the same line. The direction of optical rotation was found to be opposite to the direction of twist. The amount of rotation is very largely influenced by stretching or compressing the piece of jelly in question in the direction of the axis of twist. Mr. Ewell finds also that the rigidity of jelly, like that of rubber, is greatly increased by elongation. Upon this fact he bases an explanation of the observed optical rotation. Since the strain is greater at points more distant from the axis, the rigidity varies according to the distance from the axis. A corresponding change in the optical rigidity would account for the results.

A paper by Carl Barus gave the results of some preliminary experiments on the 'Variation of Atmospheric Nucleation' and its dependence upon weather conditions. The method employed consisted in producing condensation by sudden expansion and in observing the size of the corona formed in the resulting mist. Previous investigations of Professor Barus have made it possible to compute the diameter of the individual droplets from the diameter of the corona. A measurement of the weight of all the mist formed in a given space thus makes it possible to compute the number of droplets and therefore the number of nuclei. Observations by means of this method were made several times a day for a period of some weeks. The effect of rain in clearing the atmosphere from nuclei was clearly shown. Professor Barus also pointed out other connections between the amount of nucleation and the weather conditions, but he regarded more extended observations as needed before definite conclusions could be reached.

A paper by George B. Pegram described some very interesting results obtained by the 'Electrolysis of Radioactive Substances.' In the case of thorium salts it was found that the anode acquired a relatively intense radioactivity, which, however, lasted for only a few hours. The kathode, in the electrolysis of thorium salts, showed scarcely any acquired activity. In the case of salts containing radium, however, both anode and kathode became very active after the current had passed for a few minutes. As a result of electrolysis the dissolved salts seemed rapidly to lose their power of imparting this radioactivity to the electrodes; after long-continued electrolysis with one pair of electrodes the effect produced upon new electrodes was very slight.

A note by Ernest Blaker described a substitute for a smoke film which has several advantages. A layer of a white powder could be readily formed upon glass by rubbing it

with moistened 'Bon Ami.' The resulting layer is easily and quickly prepared, without danger of breaking the glass, does not soil the hands, and gives as satisfactory a surface for recording tracings as does smoked glass. In fact the tracings are often sharper and better adapted for measurement than those made on a smoke film. The glass surface may be quickly and completely cleaned again by a slight rubbing with a dry cloth.

A paper by William Fox described a simple geometrical construction for tracing the path of a ray of light through a prism, for use in explaining the behavior of a prism to an elementary class.

It was decided to hold the annual meeting of the society at Washington, in connection with Section B of the American Association, during Convocation Week. The arrangements for the joint meeting were left in the hands of the officers of Section B and of the Society, and will be announced later.

Ernest Merritt,
Secretary.

BIOLOGICAL SOCIETY OF WASHINGTON.

The 359th meeting was held on Saturday evening, November 1.

Frederick V. Coville spoke of the 'Dye Plants of the North Carolina Mountaineers,' illustrating his remarks with a series of herbarium specimens of the plants used, accompanied by examples of the colors obtained from them. He stated that the large use formerly made of these native dyes was partly due to the isolation of the mountaineers, partly to their poverty, and said that while there, as elsewhere, aniline dyes had come into use, an effort was being made to persuade the mountaineers to return to the once popular vegetable dyes. In regard to the extensive gathering of medicinal plants in the southern mountains the speaker said that he was told by Professor Mohr that this originated during the Civil War, when the South was obliged to rely for medicinal supplies largely on those that could be procured from native plants.

E. W. Nelson discussed the 'Evolution of Subspecies as Illustrated by Mexican Quails and Squirrels.' The series of quail exhibited showed a practically unbroken continuity of range of the genus *Colinus* from Florida around the gulf states to the Rio Grande, and thence south through eastern Mexico to Tabasco and across the Isthmus of Tehuantepec to and down the Pacific coast to the border of Guatemala. The series showed, in addition, that a considerable number of forms which have previously been considered strongly marked species are really but subspecies of the well-known bob-white (*Colinus virginianus*) of the United States.

A series of squirrels representing *Sciurus aureogaster* and its subspecies *S. a. frumentor* and *S. a. hypopyrrhus* was shown to illustrate the manner in which two complete reversals of color pattern occur in the intergrading series covering the geographic range of this species which inhabits the tropical gulf coast region of eastern Mexico.

H. J. Webber exhibited specimens of fruit resulting from crossing the edible orange with the hardy but valueless trifoliate orange. The result indicated the possibility of ultimately obtaining a variety of orange whose fruit should be of value, while the tree would grow much farther north than any existing variety.

F. A. Lucas.

TORREY BOTANICAL CLUB.

At the meeting of the Club on October 14 the scientific program consisted of informal reports of summer work and observations.

The Secretary spoke of his collections of Asters, also of *Euphrasia* and other alpine plants in the White Mountains. Discussion regarding Wettstein's monograph of *Euphrasia* followed. An interesting Euphrasid was collected by Dr. M. A. Howe in Newfoundland, a year ago.

Dr. MacDougal remarked upon the dissimilarity of the alpine conditions of the Rockies from those of the White Mountains. Tracts which in July in the rains of the White Mountains are covered merely with green would have been blazing with flowers if in the Rockies.

Dr. Underwood spoke of the recognition among farmers about Redding, Ct., of two

types of the sweet-flag, *Acorns Calamus* L., that with a white root being in favor, that with a red root being smaller and somewhat bitter, and with young leaves different in color. Dr. Underwood also mentioned his finding young plants of the date-palm coming up in railway rubble at South Norwalk, Ct., similarly observed on garbage-heaps about New York by Mr. Eugene Smith. He also spoke of the successful cultivation on a lawn at Danbury, Ct., of the native orchid, *Cypripodium reginæ,* where in four years a cluster of three or four plants has increased to forty.

Professor Lloyd reported observations near Northfield, Mass., on the protonema of *Schizostega,* the 'light-moss,' observing some differences from European characters. Testing a recent theory ascribing the spore-discharge of certain mosses to the impact of rain, Professor Lloyd secured interesting results with the capsules of *Diphyscium;* by tapping on them so as to indicate the fall of rain, the spores may be made to shoot out in a mass. On Cape Cod he observed moss capsules attached by a fungus. Beds of *Polytrichum commune* were also found killed by a fungus. Observations made by Professor Lloyd on the mode of distribution of *Lycopodium lucidulum* indicated a propelling power (in discharging gemmæ) of only about three feet on a level, not of six feet as required by a recent theory of distribution. Professor Lloyd also reported interesting observations on the fern *Onoclea sensibilis.* The name of 'sensitive fern' early used for this plant, has often provoked curious inquiry. The fern proves to show a certain regularity of movement; in case of cut plants when drying, their leaflets when touched will move toward each other with some rapidity. This is a wilting phenomenon, and the motion is a distinct bending from the midrib.

Dr. Tracy A. Hazen reported observations about St. Johnsbury, Vt., on the black maple, *Acer nigrum.* He maintained its specific distinctness from the sugar maple. Dr. Britton commented on its distinctness as seen in other parts of western New England and of western New York. Its leaves are darker beneath and are said to expand about two weeks later in spring. Its fruit is much larger and there seems a difference in the angle of divergence of the keys.

Mrs. Britton reported upon observations on an interesting *Vittaria* brought by Dr. Evans from Porto Rico, and upon a form of *Stachys* found by her on Hempstead Plains on Long Island. In a white cedar swamp there she observed the newly recognized fern *Dryopteris simulata* growing in great masses and abundantly distinct. Mrs. Britton also spoke of certain instances among the Musci of new habit assumed with new habitat, as in a *Leptodon,* usually on trees, latterly found in tufts on dry rocks; and in case of *Porotrichum Alleghaniense* as observed at Greon Lake, Jamesville, New York, an aquatic form surviving the desiccation of the rock surfaces and now assuming the habit of a *Climacium.*

Dr. Britton, whose summer was largely given to administrative work, secured some time for prosecution of his studies on the Cyperaceæ and the Crassulaceæ at Kew. Nearly half of the known species of North American Crassulaceæ are now growing in Washington or at the New York Botanical Garden, a necessary preliminary to proper descriptive work with these plants. The fleshy foliage and calyx require description from the life, not, as often hitherto, from herbarium specimens. Many of the numerous Mexican Crassulaceæ are very local, and known only from one or two localities.

Discussion followed upon the effects of the prolonged wet weather of the present season, Dr. Hazen remarking upon sedges in Vermont which are usually stiff, but this year were very long and decumbent.

EDWARD S. BURGESS,
Secretary.

COLUMBIA UNIVERSITY GEOLOGICAL JOURNAL CLUB.

October 10.—The following original papers were presented:

Mr. D. W. Johnson, 'Basaltiform Coal from New Mexico.' Illustrated by specimens and diagrams.

Mr. H. W. Shimer, 'Amygdaloidal-like Cavities in Basic Dikes in Vermont.' Illustrated with specimens.

Professor J. F. Kemp exhibited and described a new model of Vesuvius.

October 17.—Professor J. F. Kemp reviewed an unpublished paper by Dr. W. P. Jenney on the reducing abilities of different chemical compounds.

Dr. Austin Rogers read a paper on the orientation of the crystals in fossilized echinoderms; and also reviewed papers on this subject by Cesaro and by Hessel.

October 24.—The following papers were reviewed: M. Michel-Levy, 'L'Eruption de la Montagne Pelée et les Volcans des Petites Antilles'; M. J. Thierry, 'La Catastrophe de la Martinique,' and M. F. de Montessus, 'Les Manifestations volcanique et sismiques dans le groupe des Antilles,' by Dr. A. A. Julien. O. T. Hill, 'A Study of Pelée,' by Mr. G. I. Finlay.

October 31.—The following papers were reviewed: A. C. Lawson, 'The Eparchæan Interval,' a criticism on the use of the term Algonkian (*Bull. Univ. of Cal.*), by Mr. C. W. Dixon. J. S. Flett, 'A Preliminary Examination of the Ash that fell on Barbados, after the Eruption of St. Vincent, with chemical analysis,' by Wm. Pollard and J. W. W. Spencer, 'The Geological and Physical Development of Dominica [*Quar. Jour. of Geolog. Soc.* (Lond.)], by Mr. W. Campbell.

H. W. Shimer,
Secretary.

THE LAS VEGAS SCIENCE CLUB.

At a meeting held October 22 several members of the club described the work they had done during the summer. Mr. E. L. Hewett had led a party of five westward across the Jemez Mountains, and had explored the desert in the region of the Chaco Mesa and beyond. The characteristic features of the country traversed were described, and numerous photographs taken by Mr. K. M. Chapman, a member of the party, were exhibited. These photographs included excellent portraits of the two surviving members of the tribe of Pecos Indians who inhabited the old Pecos pueblo some seventy years ago. One of these has since died, and the other is very old, so this tribe will very shortly be extinct. Mrs. Cockerell described her trip to the Truchas Peaks, in the Santa Fé Range, about 13,300 feet above sea level. She exhibited a number of alpine plants found above timber line on these peaks, several being new to the flora of New Mexico. There was also shown a very beautiful and apparently undescribed *Delphinium,* found in the forests on the peaks. Mr. T. D. A. Cockerell described his visit to Roswell, in the Pecos Valley, and exhibited some of the insects and mollusca obtained. Practically nothing was known before of the insect fauna of this region. Among the mollusca, the discovery of a species of *Unio* at Roswell was especially interesting, no species of Unionidæ having been found before in New Mexico. Some account was given of the deep lakes and gypsum bluffs near Roswell, and photographs of these taken by Professor J. D. Tinsley were exhibited.

T. D. A. C.

DISCUSSION AND CORRESPONDENCE.

THE BUREAU OF AMERICAN ETHNOLOGY.

To the Editor of Science: After the death of Major J. W. Powell, director of the Bureau of American Ethnology, the Secretary of the Smithsonian Institution, of which the bureau forms a part, has abolished the title of director, and appointed the head curator of the Anthropological Division of the U. S. National Museum 'chief' of the bureau. Through this action the independence of the two institutions involved has been brought to an end.

No severer blow could be dealt to the anthropological interests of the country than the subordination of the bureau to museum interests, and no means could be devised to hinder the development of the U. S. National Museum more effectively, than its subordination under the bureau. The methods and aims of the two institutions are fundamentally distinct. The Bureau of American Ethnology is charged with the investigation of the life and customs of the North American Indians. In its work it deals with their languages, institutions, religions, customs. So far as the culture of native tribes is expressed by tangible objects, it may be illustrated in museums, but the whole domain of human culture cannot be represented by museum specimens. For this reason no museum can undertake to de-