century, his childhood days were those of Murchison and Lyell, the years of his young manhood those of Darwin, Dana and Hall, while Hugh Miller, Huxley and Tyndall were his contemporaries. His place in middle-class English life and the possession of private means made it unnecessary for him to devote himself to the practise of his profession, and his interest in the awakened spirit of research kept him busy in the fields of discovery during the half century of his life in England. His first contribution to science was a paper read before a society in Birmingham in 1840. The writer has in manuscript one of his lectures read before a similar body in London in 1863, with the names of Stafford, Hardin, Fay, Spence-Bate, Hodges and Scrivener, in the discussion on the evidences of the antiquity of man, in which he places this age conservatively at 100,000 years. This epitome of results attained a half century ago gives sufficient data to indicate his place in the thought of his time.

He was preeminently an entomologist, adding several new species to British Lepidoptera and Coleoptera. In this pursuit he was in personal touch with Darwin. He came to this country in 1868 and after a few years went to the Pacific coast. Here the Le Contes found him, and by their influence he was made curator of the museum in the University of California. While in this service it was said of him that his ability was sufficient for any office in the institution, even for its presidency. Under his guidance was trained a group of young students who have since won an honorable place as men of science.

He resigned when past seventy, and for twenty years was the Hugh Miller of the California coast, gathering insects and fossils all the way from San Diego to Santa Barbara. His collection of insects was purchased about ten years ago for the German Royal Museum in Berlin. His collection of Cenozoic marine fossils of over 200,000 specimens, classified by himself, was purchased for Beloit and Pomona Colleges, and forms an invaluable part of their illustrative material.

He lived his own life, neither seeking nor shunning publicity. To the world he was only a gray old man; to those whom he knew and cared for, the most delightful companion. He added about a score of species of insects and mollusks to the world of knowledge and something like the same number have received the name *riversii* in his honor. Without relatives, in an alien land, his life went out amid a small circle of very dear friends.

Ira M. Buell
Logan Museum, Beloit College,
Beloit, Wisconsin

THE FOURTH INTERNATIONAL BOTANICAL CONGRESS, LONDON, 1915

The second circular for the Fourth International Botanical Congress to be held at London, 1915, has been just received. As the time when motions and resolutions must be ready is short the circular is reprinted below entire, excepting that only the American members of the committees are mentioned.

The Nomenclature Section of the Third International Botanical Congress, held at Brussels in 1910, carried towards completion the work of the Vienna Congress (1905) on the international rules governing questions of nomenclature. The combined result of the decisions reached at Vienna and Brussels has been published in the second edition of the "Rules of Botanical Nomenclature." There remain, however, certain points which have to be settled by the Nomenclature Section of the London Congress in 1915.

The program of work for 1915 was defined by the Congress of 1910 as follows:

1. To fix the starting-point for the nomenclature of
   - (*a*) Schizomycetes (Bacteria);
   - (*b*) Schizophyceæ (excepting Nostocaceæ);
   - (*c*) Flagellatæ;
   - (*d*) Bacillariaceæ (Diatomaceæ).
2. To *compile lists* of nomina generica utique conservanda for
   - (*a*) Schizomycetes;
   - (*b*) Algæ (incl. Schizophyceæ, Flagellatæ, etc.); new lists for groups not included in the list of 1910 and also a supplementary list;
   - (*c*) Fungi;
   - (*d*) Lichens;
   - (*e*) Bryophyta.
3. Compilation of a double list of nomina gener-

ica utique conservanda for the use of paleobotanists.

4. Discussion of motions relating to new points which were not settled by the rules adopted at Vienna in 1905 and at Brussels in 1910.

The carrying out of this work has been entrusted to two committees under the direction of a rapporteur général, Dr. J. Briquet (Geneva), assisted by a vice-rapporteur, Professor H. Harms (Berlin). In the compilation of the lists of nomina conservanda, the rapporteur général will have the assistance of a certain number of editors in each committee. On these several committees the following names of American botanists are found:

Dr. A. Evans, New Haven, Conn., U. S. A. (Hepatics).

Professor A. J. Grout, 360 Lenox Road, Brooklyn, N. Y., U. S. A. (Mosses).

Dr. J. C. Arthur, Purdue University, Lafayette, Ind., U. S. A. (Fungi).

Professor G. F. Atkinson, Cornell University, Ithaca, N. Y., U. S. A. (Fungi).

Professor W. G. Farlow, Harvard University, Cambridge, Mass., U. S. A. (Fungi).

Dr. R. Thaxter, Harvard University, Cambridge, Mass., U. S. A. (Fungi).

F. S. Collins, 97 Dexter St., Malden, Mass., U. S. A. (Algæ).

Dr. F. H. Knowlton, U. S. National Museum, Washington, D. C., U. S. A. (Paleobotany).

Ch. D. White, U. S. National Museum, Washington, D. C., U. S. A. (Paleobotany).

The circular further explains as follows:

The functions and program of work of these committees are as follows:

1. The Rules of Nomenclature adopted at Vienna in 1905 and at Brussels in 1910 remain in force. Additions may be made to the present code only: (1) in the form of rules bearing on new points not covered by the decisions of 1905 and 1910; (2) in the compilation of supplementary lists of nomina generica utique conservanda, and in fixing the starting-point for the nomenclature of special groups, as stated above.

2. All motions must be presented in the form of additional articles to the rules of 1905–1910, drawn up in French in the form adopted in the International Code now in use. Lists of nomina generica must be drawn up in conformity with the scheme adopted in the "Rules," edition 2.

3. Motions must be drafted as briefly as possible in Latin, French, German, English or Italian. So far as possible, statistics should be supplied, indicating the consequences of the proposed motions.

4. At least sixty printed copies of the motion with the grounds of support must be sent to the rapporteur général before April 30, 1914.

5. Motions will be communicated by the rapporteur général to the members of the committees as they arrive. The members of the committees who were nominated at Brussels in 1910 are regarded as having accepted nomination, unless they have expressly signified the contrary to the rapporteur. Committees may, in case of necessity, co-opt new members who are specially competent.

6. The rapporteur général will draw up, after May 31, 1914, a critical and classified résumé of the motions which have been submitted and of the lists compiled by the special editors. He will submit this résumé to each member of the committees, and will draft on the basis of the collected motions a supplement to the Rules of Nomenclature. The work of the committees and of the rapporteur will be completed by November 30, 1914.

7. This supplement to the "Rules" will be sent out before January 1, 1915, to the principal botanical societies, and to the important botanical institutions in the different countries, and also to the principal periodicals, particularly those which specialize in cryptogamic botany and paleobotany.

8. Motions which reach the rapporteur after April 30, 1914, can be submitted to the Nomenclature Section of the Congress, only on condition that at least one hundred printed copies are sent to the president of the Section before the opening of the discussion, and that a majority of two thirds of those voting is in favor of their acceptance. New motions presented during the discussion can be admitted only if a majority of two thirds of those voting is in favor of their acceptance, and will not be voted upon until the next day.

9. The rapporteur will preserve all the documents which have been used in the elaboration of the proposed supplement to the "Rules of Nomenclature." These documents will be available for the use of the Congressists in London.

10. The revision of the Rules of Nomenclature has already occupied three congresses, namely, at Paris, Vienna and Brussels, and by 1915 the rapporteur général will have followed their details for fifteen years. It is highly desirable from all points of view that this work should be completed in London in 1915, and should cease to occupy the International Botanical Congresses. We, therefore, urgently beg botanists in general, and cryptogamists and paleobotanists in particular, to examine

carefully these points which still require consideration, and to formulate their propositions in such a manner that nothing may be left over for 1920.

11. A later circular will supply detailed information on the internal organization of the Nomenclature Section of the Congress so far as concerns the nomination of delegates, the discussion of motions, and the propositions of the Committees; also on the method of voting.

American botanists should remember the following addresses:

Dr. J. Briquet, Botanical Garden, Geneva, Switzerland—rapporteur général.

Dr. A. B. Rendle, British Museum (Nat. His.), London, Eng.—general secretary.

THE AMERICAN SOCIETY OF NATURALISTS

Members of the American Society of Naturalists, in common with other scientific societies, have been invited by the organizing committee of the Nineteenth International Congress of Americanists to participate to the fullest extent possible in the important session to be held by the Congress in Washington October 5–10, 1914.

Following the meetings there will be a very instructive trip, including visits to the museums of Philadelphia, New York, Brooklyn and Cambridge, to the museum and mounds at Columbus, Ohio, and to the museums of Chicago and Davenport; and finally there will be an extension of the trip to Denver, Santa Fé, and certain cliff-dwelling as well as other archeological remains of Colorado and New Mexico, terminating with a pre-arranged visit of scientific interest to the living Pueblo Indians.

Requests for further information and applications for membership in the Congress should be addressed to the secretary of the Congress, Dr. A. Hrdlička, United States National Museum, Washington.

Bradley M. Davis,
Secretary

SCIENTIFIC NOTES AND NEWS

The present issue of Science is the thousandth number of the new series.

Dr. Hermann M. Biggs was the guest of honor at a dinner given by two hundred of his professional colleagues in New York on February 7. Among the speakers were Professor Wiliam H. Welch of Johns Hopkins University, Dr. William H. Park, Mr. Robert W. De Forest and Borough President Marks.

At the commemoration day exercises of the Johns Hopkins University, a portrait was presented of Dr. Edward H. Griffin, professor of philosophy, to mark the twenty-fifth anniversary of his professorship.

The Rumford Committee of the American Academy has made the following appropriations: To Alpheus W. Smith, of Ohio State University, $100 for his research on the Hall and Nernst effects in the rare metals; to Charles G. Abbot, of the Smithsonian Institution, $150 for his research on the application of solar heat to domestic purposes.

Professor Wallace W. Atwood, formerly of the University of Chicago, has taken up his new work at Harvard University. His address will now be Harvard University, care of University Museum, Cambridge, Mass.

Professor A. N. Talbot, in charge of theoretical and applied mechanics at the University of Illinois, has been appointed chairman of the joint committee on stresses in railway track and subgrade of the American Society of Civil Engineers and the American Railway Engineering Association.

Dr. M. G. Donk, of the bureau of chemistry, has been detailed by the department of agriculture to cooperate with the department of forestry at the University of Idaho in investigations looking to better methods of utilizing mill waste and refining by-products obtained from stumps. The work will be a continuation and extension of experiments which have been carried on for the past three years by Dr. C. H. Shattuck, head of the department of forestry at Moscow.

Sir Francis Darwin delivered the first Galton anniversary lecture on February 16. The subject of the lecture was Francis Galton.

In the latter part of January, Dr. Arthur L. Day, director of the geophysical laboratory of