

sult a European Advisory Committee, if one be appointed, it is announced that authors are now at liberty to publish these treatises or essays without prejudice to their interest as competitors.

#### CONGRESSES.

THE sixth International Geographical Congress will be held at London, on July 26, 1895, and continue until August 3. There will be an extensive exhibition in connection with the congress.

#### NEW AND FORTHCOMING PUBLICATIONS.

W. B. SAUNDERS, Philadelphia, has in preparation *An American Text-book of Physiology*, by Henry P. Bowditch, M. D., John G. Curtis, M. D., Henry H. Donaldson, Ph. D., William H. Howell, M. D., Frederic S. Lee, Ph. D., Warren P. Lombard, M. D., Graham Lusk, Ph. D., Edward T. Reichert, M. D., and Joseph W. Warren, M. D., with William H. Howell, Ph. D., M. D., as Editor.

THE idea of holding International Mathematical Congresses is crystallizing into shape. Prof. Vassilief, of Kazan, has suggested an assembly of mathematicians in 1896, in order to definitely decide the organization of such congresses. The matter was pushed a little further at the Vienna meeting of the Deutsche Mathematiker Vereinigung, in September last, when it was unanimously resolved that the Committee of the Mathematical Union should take part in framing the necessary arrangements; and the Mathematical Section of the French Association for the Advancement of Science have also expressed their support of the scheme. A circular now informs us that the Editors of the *Intermédiaire* will be glad to receive the names of mathematicians who are in favor of international meetings of the kind suggested. M. C. A. Laisant's address is 162 Avenue Victor-Hugo, Paris; and that of M. E. Lemoine, 5 rue Littré.—*Nature*.

FÉLIX ALCAN has just issued the first part (extending as far as *Aliment* only) of an elaborate *Dictionnaire de Physiologie*, edited by M. Charles Richet with the coöperation of the leading French physiologists. The work is expected to contain about 5,000 pages, and to be completed in fifteen parts or five volumes.

GINN & Co. announce for publication in February *Molecules and the Molecular Theory of Matter*, by A. D. Risteen.

APPLETON & Co. announce *The Dawn of Civilization*, by Prof. Maspero, and *The Pygmies*, translated from the French of A. de Quatrefages, by Prof. Frederick Starr.

WHITTAKER & Co. are publishing this year a weekly journal of science combining *The Technical World* and *Science and Art*.

W. ENGELMANN has begun the publication of an *Archiv für Entwicklungsmechanik der Organismen*, edited by Dr. W. Roux.

THE Rose Polytechnic Institute of Terre Haute, Ind., has begun the publication of a series of bulletins of which the first number is *Physical Units*, by Prof. Thomas Gray.

#### SOCIETIES AND ACADEMIES.

##### THE ANNUAL MEETING OF THE AMERICAN MATHEMATICAL SOCIETY.

THE annual meeting of the American Mathematical Society was held Friday afternoon, December 28th, at Columbia College, New York. In the absence of the president, Dr. Emory McClintock, and of the vice president, Dr. G. W. Hill, Professor R. S. Woodward, of Columbia College, presided. Among those present were Professor Simon Newcomb, Professor J. M. Van Vleck, Professor Henry Taber, Professor Mansfield Merriman, Professor H. D. Thompson, Professor Mary W. Whitney, Dr. E. L. Stabler, Mr. P. A. Lambert, Mr. R. A. Roberts, Dr. Charlton T. Lewis, Mr. Gustave Legras, Professor J. H. Van Amringe, Professor Thomas S. Fiske, Dr. E. M.

Blake and Mr. G. H. Ling. In the secretary's report, it was stated that the total membership of the Society was 251. The council and officers elected for 1895 were as follows: President, Dr. George W. Hill; Vice President, Professor Hubert A. Newton; Secretary, Professor Thomas S. Fiske; Treasurer, Professor R. S. Woodward; Librarian, Dr. E. L. Stabler; Committee of Publication, Professor Thomas S. Fiske, Professor Alexander Ziwet, Professor Frank Morley; Other Members of the Council, Professor Thomas Craig, Dr. Emory McClintock, Professor Mansfield Merriman, Professor Henry B. Fine, Professor E. Hastings Moore, Professor Ormond Stone, Professor Simon Newcomb, Professor Charlotte Angas Scott, Professor Henry S. White.

The address of the retiring president, Dr. McClintock, was read to the Society by Dr. Charlton T. Lewis. It was entitled *The Past and Future of the Society*. The following papers were also read: *On a Certain Class of Canonical Forms*, by Mr. Ralph A. Roberts; *A New Definition of the Hyperbolic Functions*, by Professor Mellen W. Haskell.

THOMAS S. FISKE, *Secretary*.

COLUMBIA COLLEGE.

#### IOWA ACADEMY OF SCIENCES.

Ninth annual session, Des Moines, Iowa, December 27 and 28, 1894.

Thursday Morning, December 27.

1. *Inter-Læssial Till near Sioux City*: J. E. Todd and H. Foster Bain.

2. *Pre-Glacial Elevation of Iowa*. 3. *The Central Iowa Section of the Mississippian Series*: H. Foster Bain.

4. *Secular Decay of Granitic Rocks*. 5. *Structure of Paleozoic Echinoids*. 6. *Opinions Concerning the Age of the Sioux Quartzite*. 7. *Illustrations of Glacial Planing in Iowa*: Charles R. Keyes.

8. *Record of the Grinnell Deep Boring*. 9. *The Topaz Crystals of Thomas Mountain, Utah*: Arthur J. Jones.

10. *The Lansing Lead Mines*: A. G. Leonard.

11. *How Old is the Mississippi?* 12. *On the Formation of the Flint Beds of the Burlington Limestones*. 13. *Coincidence of Present and Pre-Glacial Drainage Systems in Extreme Southeastern Iowa*. 14. *Extension of the Illinois Lobe of the Great Ice Sheet into Iowa*. 15. *Glacial Markings in Southeastern Iowa*: F. M. Fultz.

16. *The Maquoketa Shales in Delaware County, Iowa*. 17. *On Some Supposed Devonian Outliers in Delaware County, Iowa*: S. Calvin.

18. *On the Occurrence of Megalomus Canadense in the LeClaire Beds at Port Byron, Ill.*

19. *Geological Section of Y. M. C. A. Artesian Well at Cedar Rapids, Iowa*: William H. Norton.

Thursday Afternoon.

20. *President's Address: Some Recent Work on the Theory of Solutions*: L. W. Andrews.

21. *Report of Committee on State Fauna*: C. C. Nutting.

22. *A New Method of Studying the Magnetic Properties of Iron*. 23. *On the Design of Transformers and Alternating Current Motors*. 24. *Note on a Phenomenon of Diffraction in Sound*: W. S. Franklin.

25. *A Kymograph and its Use*: W. S. Windle.

26. *The Volatility of Mercuric Chloride*: A. C. Page.

27. *Notes on Applying Pollen in the Cross-breeding of Plants*: N. E. Hansen.

Friday Morning, December 28.

28. *Changes that Occur in the Ripening of Indian Corn*: C. F. Curtiss.

29. *Methods of Soil Analysis*: G. E. Patrick.

30. *The Coal Supplies of Polk County, Iowa*: Floyd Davis.

31. *A Study of the Nitrogen Compounds of the Soil*: D. B. Bisbee.

32. *A Chemical Study of Honey*: W. H. Heileman.

33. *Notes from the Chemical Laboratory, Iowa Agricultural College, 1894*: A. A. Bennett.

Friday Afternoon.

34. *Effects of Heat on the Germination of Corn and Corn Smut*: F. C. Stewart.

35. *A General Discussion of the Family Psyllidæ, with Descriptions of New Species found at Ames, Iowa*: C. W. Mally.

36. *New Species of Thripidæ*: Alice M. Beach.

37. *Studies of Migration of Certain Aphididæ*: Herbert Osborn and F. Atwood Serrine.

38. *Description of a Species of Aphid Occurring on Carex*: F. Atwood Serrine.

39. *The Pollination of Cucurbits*—by title: L. H. Pammel and Alice M. Beach.

40. *Notes on the Pollination of Some Flowers*: Alice M. Beach.

41. *On the Migration of Some Weeds*. 42. *Notes on Fungus Diseases of Plants at Ames, Iowa, 1894*—by title. 43. *Notes on the Flora of Western Iowa*—by title: L. H. Pammel.

44. *The Action of Antiseptics and Disinfectants on Some Micro-organisms*: L. H. Pammel and O. H. Pagelsen.

45. *Notes on a Micrococcus which Colors Milk Blue*: L. H. Pammel and Robert Combs.

46. *On the Structure of the Testa of Polygonaceæ*: Emma Serrine.

47. *A Study of the Glands in Hoptree (Ptelea Trifoliata)*: Cassie M. Bigelow.

48. *Graphic Representation of the Properties of the Elements*. 49. *Strata Passed in Sinking a Well at Sidney*: T. Proctor Hall.

50. *Notes on the Minerals of Webster County*: Arthur C. Spencer.

51. *Some Notes on the Reptiles of Southeastern Iowa*. 52. *Bones Found in a Cave in Louisa County*. 53. *Mastodon and Mammoth Remains in Southeastern Iowa*: A. H. Conrad.

54. *Cement Clays in Iowa*. 55. *Conclusions as to the thickness of the Upper Carboniferous in Southwestern Iowa*: E. H. Lonsdale.

56. *A Geographical and Synonymic Catalogue of the Unionidæ of the Mississippi Valley*: by title, R. Ellsworth Call.

Officers for 1895 were elected as follows: President, H. W. NORRIS.

1st Vice President, C. R. KEYES.

2d Vice President, T. P. HALL.

Secretary-Treasurer, HERBERT OSBORN.

Librarian, H. FOSTER BAIN.

Executive Committee, Elective Members: W. H. NORTON, N. E. HANSEN and T. H. McBRIDE.

#### SCIENTIFIC JOURNALS.

AMERICAN JOURNAL OF SCIENCE, JAN.

*Late Glacial or Champlain Subsidence and Re-elevation of the St. Lawrence River Basin*: By W. UPHAM.

*Automatic Mercury Vacuum Pump*: By M. I. PUPIN.

*Graphical Thermodynamics*: By R. DE SAUSURE.

*Application of the Schroeder-Le Chatelier Law of Solubility to Solutions of Salts in Organic Liquids*: By C. E. LINEBARGER.

*Preliminary Notice of the Plymouth Meteorite*: By H. A. WARD.

*Scientific Intelligence*.

#### NEW BOOKS.

*Elementary Lessons in Electricity and Magnetism*. SYLVANUS P. THOMPSON. New York and London, Macmillan & Co. 1895. Pp. xv + 628. \$1.40.

*Popular Scientific Lectures*. ERNST MACH. Translated by J. McCORMACK. Chicago, The Open Court Publishing Co. 1895. Pp. 313. \$1.00.

*Laboratory Exercises in Botany*. EDSON S. BASTIN. Philadelphia, W. B. Saunders. 1885. Pp. 540. \$2.50.

*The Aeronautical Annual*. Edited by JAMES MEANS. Boston, W. B. Clarke & Co. 1895. Pp. 172.

*Outlines of Dairy Bacteriology*. H. L. RUSSELL. Madison, Wis., Published by the Author. 1894. Pp. vi + 186.