

sors Harkness, Morley and Charlotte Scott. The greatest mathematician in the world, Sophus Lie, was not expected; and the greatest French mathematician, Poincaré, though down for a speech, did not come; but the actual program was particularly rich and interesting.

It is very noteworthy that the Congress was divided into five sections: (1) Arithmetic and Algebra; (2) Analysis, and Theory of Functions; (3) Geometry; (4) Mechanics and Mathematical Physics; (5) History and Bibliography.

The program of the first section contained the only title in English: 'On Pasigraphy, its present state and the pasigraphic movement in Italy,' by Ernst Schroeder, of Karlsruhe, author of 'Algebra der Logik.'

The second section contained a title from Z. de Galdeano, whose heroic efforts gave Spain a Journal of Mathematics, now unfortunately dead in the decadence of that beautiful, priest-ridden land.

The program of the third section, the only one consecrated wholly to a single title, Geometry, contained two titles on the non-Euclidean geometry.

Burali: Les postulats pour la géométrie d'Euclide et de Lobatschewsky.

Andrade: 'La statique non euclidienne et diverses formes mécaniques du postulat d'Euclide.'

In Section IV. Stodola treated an important subject, 'Die Beziehungen der Technik zur Mathematik.'

In the fifth section Eneström gave an important discussion of bibliography, a point where the Congress can and will render aid of fundamental importance.

In the first general assembly Rudio spoke on the aim and organization of international mathematical congresses.

It was determined that the next Congress should take place at Paris in 1900, under the auspices of the Société mathématique de France.

As aims were specified: (1) to promote personal relations between mathematicians of different lands; (2) to give, in reports or conferences, an aperçu of the actual state of the divers branches of mathematics, and to treat questions of recognized importance; (3) to deliberate on the problems and organization of future congresses; (4) to treat questions of bibliography, of terminology, etc., on subjects where an *entente internationale* appears necessary.

Rudio mentioned the yearly issue of an address-book of all mathematicians of the world with indication of their specialties; also of a biographic dictionary of living mathematicians with portraits; also of a literary journal for mathematics.

At the second general assembly Peano gave a conference: 'Logica matematica;' and Felix Klein a conference on teaching higher mathematics.

Three important resolutions were introduced by Vasiliev, of Kazan; Laisant, of Paris, and G. Cantor, of Halle, constituting: (1) a commission for preparation of general reports; (2) a standing bibliographic and terminology commission; (3) a commission to give the congress a permanent character by archives, libraries, stations for correspondence, editing or publishing noteworthy works, etc.

Surely this Congress has proven that it came only in the fullness of time, and that the world moves!

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CURRENT NOTES ON ANTHROPOLOGY.

NEW MUSEUM PUBLICATION.

In May appeared 'Bulletin Number 1,' of the Free Museum of Science and Art, Philadelphia, a neat octavo of fifty pages, with illustrations. The announcement states that it will be published four times a year, at the subscription price of one dollar

a year. It will contain 'a résumé of the collections made by the Museum, notices of publications referring to museum work, and brief papers by the officers of the Museum.'

The present number contains two such papers, both by myself, one on 'The Pillars of Ben,' which are some curious monoliths in Chiapas, and the other on the Greek *Murmex* (referred to in *SCIENCE*, April 16, 1897). The notes on the accessions to the Museum are edited by Mr. Stewart Culin, the Director, and are arranged geographically. They present descriptions with cuts of a curious carved pebble from the Delaware valley, a horn arrow-straightener from the Pueblo Indians, name tablets from Corea, an inscribed stone from the thirteenth Egyptian dynasty described by the curator, Mrs. Sara Y. Stevenson, and a number of other interesting specimens.

Such a publication will be not only creditable to the Institution, but will prove a valuable reference work for students in archaeology and ethnography.

BOTANY OF THE KLAMATHS.

A RECENT publication of the United States Department of Agriculture is a paper on the plants used by the Klamath Indians of Oregon, by Mr. Frederick V. Coville. It well illustrates how closely the aborigines studied their plant environment and drew their supplies from the vegetable world to the full extent that it was capable of furnishing. Mr. Coville gives the native names for more than a hundred species, all of which were utilized for food, clothing, dyeing, tool-making, 'medicine,' smoking, etc. He succeeded in identifying all the plants in use, and also obtained the native designations from educated Klamaths. He gives these with the diacritic marks used in the *Century Dictionary*; though it would have been better to have had recourse to the orthography adopted in the *Klamath-English Diction-*

ary, published by the United States Geographical Survey in 1890.

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NOTES ON INORGANIC CHEMISTRY.

THE *Revue Universelle des Mines* contains in the last number an article by Franz and Büttgenbach on the saline deposits of northern Germany in which a very full description is given of the Stassfurt salt beds. Twenty-five different mineral species are found in these deposits, of which the most important are the sylvine and kainite, so extensively used as fertilizers. The mean thickness of the potassium salt beds is at least twenty meters, and the quantity is estimated at ten billion tons. About three million tons are mined annually, so that at the present rate the supply would last thirty-three centuries.

THE British Home Office has issued an amendment to their order of February last, regarding the keeping of calcium carbide. The new order permits the keeping of quantities less than five pounds provided it is hermetically sealed in closed metal vessels containing not more than one pound each. Unless so kept no quantity whatever may be held without a license. Such restrictions, which are not peculiar to Great Britain, illustrate one method of powerful corporations to stifle competition. It appears that these orders result not so much from the intrinsic danger in calcium carbide as from a fear, on the part of those interested in gas, oil and electric lighting, of rivalry in the use of acetylene.

G. P. DROSSBACH discusses in the *Journal für Gasbeleuchtung* the fact that, while pure thorium oxide has a feeble glow in the Bunsen flame, when a per cent. or less of cerium oxide is present the light is increased ten or twelve fold. He attributes the ac-