shores those men of all nations whose names stand for progress and advance in Applied Chemistry, that branch of our noble science to which America owes no small share of her magnificent development and prosperity.

FERDINAND G. WIECHMANN.

AMERICAN MATHEMATICAL SOCIETY.

THE fifth Summer Meeting of the Society was held at the Institute of Technology, Boston, Mass., on Friday and Saturday, August 19th and 20th. The attendance exceeded that at any previous meeting of the Society, reaching about seventy, including fifty-three members. The number of papers presented also shows a material increase. Nearly all the officers of the Society were present. The President, Professor Simon Newcomb, occupied the chair at the opening session, and was relieved later by the Vice-Presidents, Professors R. S. Woodward and E. H. Moore. The Council announced the election of four new members and the receipt of six applications for membership. A committee of five was appointed by the Council to consider the question of securing improved facilities for the publication of original mathematical papers in this country.

Two years ago a Colloquium was held in connection with the Summer Meeting at Buffalo. At the Toronto meeting last year it was not convenient to retain this feature. But this year it was decided to revive it, and in the week following the regular session twenty-eight members of the Society met at Cambridge to attend the courses of lectures offered by Professors W. F. Osgood and A. G. Webster. The title of Professor Osgood's course was: 'On Some Methods and Problems of the General Theory of Functions;' that of Professor Webster's was: 'The Partial Differential Equations connected with Wave Propagation.' The success attending the Colloquium will probably ensure the retention of this feature at the future summer meetings.

The most cordial relations prevailed between the Society and Section A of the American Association. The latter body set apart a special day (Thursday) for the reading of the chief mathematical papers, an arrangement which was greatly appreciated by those members of the Society who wished to attend both the Colloquium and the meeting of Section A.

The following is a list of the papers presented at the Fifth Summer Meeting:

(1) DR. E. M. BLAKE: 'On the ruled surfaces generated by the plane movements whose centrodes are congruent conics tangent at homologous points.' (Illustrated by models.)

(2) PROF. T. F. HOLGATE: 'A second locus connected with a system of coaxial circles.'

(3) DR. J. I. HUTCHINSON: 'On the Hessian of the cubic curve.'

(4) DR. VIRGIL SNYDER: 'Asymptotic lines on cubic scrolls.'

(5) PROF. ALEXANDER CHESSIN: 'Relative motion considered as disturbed absolute motion.'

(6) PROF. A. L. BAKER: 'Fundamental algebraic operations.'

(7) PROF. ALEXANDER CHESSIN: 'On the development of the perturbative function in terms of the mean anomalies.'

(8) PROF. E. O. LOVETT: 'Note on the differential invariants of a system of $m+1$ points by projective transformation.'

(9) PROF. W. F. OSGOOD: 'Note on the extension of the Poincaré-Goursat proof of a theorem of Weierstrass's.'

(10) PROF. W. F. OSGOOD: 'Supplementary note on a single-valued function with a natural boundary, whose inverse is also single-valued.'

(11) PROF. MAXIME BÔCHER: 'The theorems of oscillation of Sturm and Klein.'

(12) PROF. A. L. BAKER: 'Space concepts in mathematics.'

(13) DR. T. P. HALL: 'An algebra of space.'

(14) PROF. E. H. MOORE, 'The subgroups of the generalized modular group.'

(15) PROF. L. L. CONANT: 'An application of the theory of substitutions.'

(16) DR. J. H. BOYD: 'A method for finding an approximate integral for any differential equation of the second order.'

(17) DR. H. F. STECKER: 'Non-euclidean cubics.

(18) DR. G. A. MILLER: 'On the simple isomorphisms of a Hamiltonian group to itself.'

(19) DR. L. E. DICKSON: 'A new triply-infinite system of simple groups obtained by a two-fold generalization of Jordan's first hypoabelian group.'

(20) DR. L. E. DICKSON: 'Construction of a linear homogeneous group in m variables.'

(21) MR. JACOB WESTLUND: 'On a class of equations of transformation.'

(22) PROF. F. MORLEY: 'A generalization of Desargues' theorem.'

(23) DR. E. L. STABLER: 'A rule for finding the day of the week corresponding to a given date.'

(24) DR. ARTEMAS MARTIN: 'Evolution by logarithms.'

(25) DR. ARTEMAS MARTIN: 'A method of finding without tables the number corresponding to a given logarithm—II.'

F. N. COLE,
Secretary.

BOSTON MEETING OF THE NATIONAL GEOGRAPHIC SOCIETY.

A SPECIAL meeting of the National Geographic Society was held, in connection with Section E of the American Association for the Advancement of Science, in the lecture hall of the Boston Society of Natural History, August 25th, 2 to 4:30 p. m., Vice-President W J McGee presiding in the absence of President Bell; in addition to the members of the Section, a number of the working members of the Society, including a quorum of the Board of Managers, were in attendance.

The first communication was by Marcus Baker, of the U. S. Geological Survey, on 'The Venezuela-British Guiana Boundary Dispute.' Mr. Baker was the geographer of the Boundary Commission appointed by President Cleveland near the end of 1896, consisting of Justice David J. Brewer, Dr. Andrew D. White, Professor Daniel C. Gilman, Justice Richard H. Alvey and F. R. Coudert, Esquire, with S. Mallet-Prevost as Secretary. This Commission, made up of eminent American citizens, undertook a critical examination of the boundary dispute in that broad and liberal spirit characteristic of American statecraft and diplomacy. Their inquiries were so shaped as to cover the entire history of settlement and occupation of the territory involved; months were spent in searching the archives of both America and Europe for maps and records; and considerable progress was made in the arrangement of this material before the duties of the Commission were brought to an end through an international agreement. While peace-loving citizens and subjects alike rejoiced when the Commission found its occupation gone, those who knew of its work and plans suffered a certain disappointment; for the Commission was the ablest and most disinterested ever created to consider international complications, and the report, if carried out in accordance with the original plan, would undoubtedly have afforded a model for all nations. It was in line with the policy of rendering every line of inquiry exhaustive that the Commission employed a geographer, recommended by the President of the National Geographic Society and the heads of the scientific institutions engaged in geographic work for the federal government. The report of the Commission was far from complete, by reason of the cessation of the work when only well begun, but comprises three octave volumes with a folio atlas, published within a few months. Mr. Baker summarized the geographic material contained in this report, and described the geographic conditions of the disputed territory. His remarks were illustrated by maps compiled from all available sources.

Mr. F. P. Gulliver, of Harvard University, discussed a 'Classification of Coastal Forms,' giving on the blackboard full illustrations of types. The classification proposed is genetic; and the great facility of classifying islands, bars, promontories, sea-cliffs, beaches and other coastal fea-