The intention of the author has been to furnish a guide to the rich, tropical flora of the French islands, Guadeloupe and Martinique. He has succeeded well in making the work a manual of these insular floras. In addition to this, he has included a large amount of interesting and useful information upon the distribution, phenology, economic value and uses, folk-lore, etc., of the plants of the flora. This task has been accomplished in such a way as to greatly enhance the scientific value of the volume.

The most interesting part to botanists in general is the introduction, which contains a concise account of the phytogeography of the islands. This includes a sketch of the physiography of the islands, of their climate, with especial reference to humidity, and of the zonal distribution of the plants of the flora. The latter, though touched only in its gross features and treated entirely from the floristic instead of the ecologic aspect, is of importance, since it is the first attempt to portray the zonation of the floral covering of a large island. The author distinguishes five zones, or, as he terms them, regions; a use of the term which should be avoided. These zones may be characterized briefly as follows:

I. Maritime zone. This comprises a narrow strip of the sea, characterized by the presence of numerous algæ and by two aquatic monocotyledons, *Ruppia maritima* and *Thalassia testudinum*.

II. Lowland, or coastal zone. This zone begins at the sea level and stretches to the forests at a mean altitude of 500 meters. It is the cultivated zone, and includes four-fifths of the species of the flora. In it may be distinguished eight formations, viz.: (1) Beach; (2) Halophytic woodland; (3) Savannah; (4) Pond and marsh; (5) Rocky hills and slopes; (6) Calcareous hills; (7) Xerophytic coasts; (8) Cultures.

III. Median, or forest zone. A zone of primitive tropical forest extends from a mean elevation of 500 meters to about 800–1000 meters. The lower layers are characterized by the dominance of Aroideæ, terrestrial Orchidaceæ, and species of *Hymenophyllum*, *Trichomanes*, *Lindsaya*, *Asplenium*, *Pteris*, *Polypodium*, *Aspidium*, etc.

IV. Transition zone. This is a narrow stretch, characterized by thickets, marking the transition between the forests and the montane zone.

V. Montane zone. The mountain sides, summits and plateaux possess a floral covering of very sharp delimitation. The shrubs and trees of the two lower zones are replaced by a uniform vegetation of dwarf shrubs and herbs.

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SCIENTIFIC JOURNALS.

WITH the recent appearance of the July number, the *Bulletin of the American Mathematical Society* completes its seventh annual volume. Founded in 1891 as the *Bulletin of the New York Mathematical Society*, it has long been recognized as the most thoroughly representative mathematical journal of the country. The period of its existence has been coincident with the great wave of mathematical productivity which is still sweeping with constantly increasing energy over America. In this movement the American Mathematical Society and with it the *Bulletin* have taken a conspicuous part. It is largely to the members, individually and collectively, of the Society that the movement is due, and its results have been reflected in their organ, the Society's journal. In its list of contributors are found the names of Simon Newcomb, G. W. Hill, Emory McClintock, E. H. Moore, Thomas Craig, B. O. Peirce, H. B. Fine, W. F. Osgood, M. Bôcher, J. Pierpont, H. S. White and nearly every other American mathematician of standing. The *Bulletin* distributes 450 copies of each number to members of the Society, exchanges and subscribers. The volume just completed, Vol. IV., second series, contains 577 pages.

The July number of the *Bulletin* contains, besides the usual 'Notes' and 'New Publications,' the 'Seventh Annual List of Papers Read before the Society and Subsequently Published,' and the index, the following articles and reviews: 'The Structure of the Hypoabelian Groups,' by Dr. L. E. Dickson; 'On the Hamilton Groups,' by Dr. G. A. Miller; 'Note on the Infinitesimal Projective Transformation,' by Professor E. O. Lovett; 'Infinitesimal Transformations of Concentric Conics,' by Professor

E. O. Lovett; 'A Solution of the Biquadratic by Binomial Resolvents,' by Dr. G. P. Starkweather; 'Note on Special Regular Reticulations,' by Professor E. W. Davis; 'Limitations of Greek Arithmetic,' by Mr. H. E. Hawkes; 'Maxima and Minima of Functions of Several Variables,' by Professor James Pierpont; 'On the Intersections of Plane Curves,' by Mr. F. S. Macaulay; 'Elliott's Algebra of Quantities,' by Professor H. S. White; 'Hadamard's Geometry,' by Professor F. Morley; 'Further Note on Euler's Use of i to Represent an Imaginary,' by Professor W. W. Beman; and 'Note on Napier's Rules of Circular Parts,' by Professor E. O. Lovett.

SOCIETIES AND ACADEMIES.

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

We have on frequent occasions during the past year called attention to the preparations for the anniversary meeting of the American Association which takes place next week at Boston. We now subjoin the programs of the sections, to which undoubtedly important additions will be made at the time of the meeting.

SECTION A. — MATHEMATICS AND ASTRONOMY.

Address of the Vice-President: Development of Astronomical Photography. By Professor E. E. Barnard, Yerkes Observatory.

1. Three Years' Experience in making Astronomy Popular. By Miss Mary Proctor, New York City.

2. Personal Equations during the Past Century. By Professor Truman H. Safford, Williams College, Williamstown, Mass.

3. Triangles whose Sides and Areas are expressed by Whole Numbers. By Professor Truman H. Safford, Williams College.

4. On Rational Right-Angled Triangles. By Dr. Artemas Martin, U. S. Coast Survey, Washington, D. C.

5. Behavior of the Atmospheres of Gas and Vapor—Generating Globes in Celestial Space. By Dr. J. Woodbridge Davis, Woodbridge School, New York City.

6. Graphical Logic. By Professor Ellen Hayes, Wellesley College, Wellesley, Mass.

7. Illustrations of the Comitant Method of constructing the Imaginary Loci of Analytic Geometry, so as to render their Properties evident to the Eye. By Professor Frank H. Loud, Colorado College, Colorado Springs.

8. The Mass and Moments of Inertia of the Earth's Atmosphere. By Professor R. S. Woodward, Columbia University, New York City.

9. A New Form of Pendulum for measuring the Acceleration of Gravity. By Professor R. S. Woodward, Columbia University.

10. The Gravitation Constant and the Mean Density of the Earth. By Professor R. S. Woodward, Columbia University.

11. The Substitution Groups of Order Fifty. By Dr. G. A. Miller, Cornell University, Ithaca, N. Y.

12. Correction of Local Error in Stellar Photometry. By Henry M. Parkhurst, Brooklyn, N. Y.

13. Variation of Latitude and the Constant of Aberration from Observations at Columbia University Observatory, during the years 1892–1898. By Professors J. K. Rees, Harold Jacoby and Dr. H. S. Davis. Read by Professor J. K. Rees, Columbia University Observatory, New York City.

14. Photographic Researches near the Pole of the Heavens. By Professor Harold Jacoby, Columbia University Observatory.

15. The Parallaxes of 61^1 and 62^2 Cygni from a Reduction of the Rutherfurd Measures. By Dr. H. S. Davis, Columbia Univ. Observatory.

16. The Praesepe Group: Measurement and Reduction of the Rutherfurd Photographs. By Dr. Frank Schlesinger, Columbia University.

17. The Western Boundary Survey of Maryland. By Dr. L. A. Bauer, University of Cincinnati, Cincinnati, Ohio.

18. Linear Algebras. By Professor James Byrnie Shaw, Illinois College, Jacksonville, Ill.

19. A Simple Test as to whether a Continuous Function possesses a Derivative; with Applications to the Examples, hitherto devised, of Continuous Functions having no Derivative. By Professor R. D. Bohannan, Ohio State University, Columbus Ohio.