

credit either explicitly or implicitly to Eratosthenes for the discovery of the method. In particular, this was done in the two histories of mathematics recently published in our country as well as in the excellent work of reference in two volumes on the "History of Greek Mathematics," by T. L. Heath, 1921. It was, however, not done in the extensively revised second edition of the "Geschichte der Elementar-Mathematik" in seven volumes by J. Tropicke, 1921-1924.

It seems desirable to direct attention to this matter in a widely read periodical in order to facilitate the correction of such a widespread error, especially since this correction implies greater harmony in the picture of the mathematical developments due to the Greeks prior to the time of Euclid, about 300 B. C. The given method naturally suggests itself to any one who thinks seriously about the problem of determining all the prime numbers which do not exceed a given limit, and it has probably been rediscovered independently by thousands of students of mathematics. In view of the high mathematical attainments of the Greeks at the time of Euclid one would naturally be inclined to assume that this method could not have escaped being noted by the predecessors of Euclid, and it is therefore interesting to find that such an assumption is now supported by substantial historical evidence. The fact that no explicit reference to the division of the natural numbers into the two classes now known as prime and composite has as yet been found in the literature of those peoples whose civilization preceded that of the Greeks is a striking comment on their mathematical attainments.

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ECTOLOGY OR METAXENIA?

In an article entitled "Xenia and Other Influences Following Fertilization"¹ Waller discussed fully the nature of xenia and the proper use of the term and at the same time proposed the word "ectogony" as a suitable term to describe those influences which are due to the developing zygote. Recently Swingle has proposed the term "metaxenia" for "the direct effect of pollen on the tissues of the mother plant outside the embryo and endosperm." This term is open to many objections, since the word "xenia" plainly has come to mean the appearance of ordinary dominant heredity in the endosperm and not the effect of some material which might ooze out of the zygote nor of an irritation produced by its development. The influence exerted on the mother by the developing embryo is a wide-spread phenomenon in both plants and animals and is not at all confined to cases where

a xeniophyte is present. Even in the Anthophyta a considerable part of the species have so little endosperm that it can not have much if any influence on the surrounding sporophyte tissues. Any effect that is noticed in such cases presumably comes from the zygote and is thus not "metaxenia." Definite effects from the outside on living tissues are abundant outside of the reproductive processes also, ranging all the way from effects of parasites and gall insects to tight shoes, which presumably produce corns without emitting a special "corn hormone." The term "metaxenia" would, of course, also be inappropriate if applied to gymnosperms and especially in such cases as the higher liverworts where the perigynium or so-called perianth seldom reaches its normal form if fertilization of the archegonium does not take place.

Dr. Waller's term, ectogony, is correct and appropriate from every point of view, since it simply implies an effect following fertilization and thus can be used as appropriately for the effect in a liverwort gametophyte as for one in an angiospermous sporophyte, while the term metaxenia would manifestly be confusing and even absurd if applied to the first case.

If differential effects are present through a specific influence brought in with the paternal heredity they can be designated as differential ectogony. Since this effect is, no doubt, certain to receive considerable attention in the near future, the term ectogony should by all means be accepted by both botanists and zoologists.

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REPORTS

COMMITTEE OF THE AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

At the meeting of the board of directors of the American Institute of Electrical Engineers, held in New York on August 7, President Schuchardt announced the committee appointments for the administrative year commencing August 1, 1928. The chairmen of the committees appointed are as follows:

GENERAL COMMITTEES

Executive: R. F. Schuchardt, electrical engineer, Commonwealth Edison Company, Chicago, Ill.

Finance: E. B. Meyer, chief engineer, Public Service Production Company, Newark, N. J.

Meetings and Papers: H. P. Charlesworth, plant engineer, American Telephone and Telegraph Company, New York.

¹ *Ohio Jour. Sci.*, 17: 273-284, 1917.

Publication: W. S. Gorsuch, engineer, economics, Interborough Rapid Transit Company, New York.

Coordination of Institute Activities: H. A. Kidder, superintendent of motive power, Interborough Rapid Transit Company, New York.

Board of Examiners: E. H. Everit, assistant to general manager, Southern New England Telephone Company, New Haven, Conn.

Sections: W. B. Kouwenhoven, associate professor of electrical engineering, Johns Hopkins University, Baltimore, Md.

Student Branches: J. L. Beaver, associate professor of electrical engineering, Lehigh University, Bethlehem, Pa.

Membership: J. E. Kearns, electrical engineer, General Electric Company, Chicago, Ill.

Headquarters: R. H. Tapscott, electrical engineer, New York Edison Company, New York.

Law: C. O. Bickelhaupt, vice-president, Southern Bell Telephone and Telegraph Company, Atlanta, Ga.

Public Policy: D. C. Jackson, professor of electrical engineering, Massachusetts Institute of Technology, Cambridge, Mass.; consulting engineer, Jackson and Moreland, Boston, Mass.

Standards: F. D. Newbury, manager, power engineering department, Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa.

Edison Medal: Samuel Insull, president, Commonwealth Edison Company, Chicago, Ill.

Lamme Medal: Charles F. Scott, professor of electrical engineering, Sheffield Scientific School, Yale University, New Haven, Conn.

Code of Principles of Professional Conduct: Harold B. Smith, professor of electrical engineering, Worcester Polytechnic Institute, Worcester, Mass.

Columbia University Scholarships: W. I. Slichter, professor of electrical engineering, Columbia University, New York.

Award of Institute Prizes: H. P. Charlesworth, plant engineer, American Telephone and Telegraph Company, New York.

Safety Codes: F. V. Magalhaes, general superintendent of distribution and installation, Manhattan, New York Edison Company, New York.

Licensing of Engineers: Francis Blossom, Sanderson and Porter, New York.

Advisory Committee to the Museums of the Peaceful Arts: John Price Jackson, manager, personnel bureau, New York Edison Company, New York.

TECHNICAL COMMITTEES

Automatic Stations: W. H. Millan, superintendent of substations, Union Electric Light and Power Company, St. Louis, Mo.

Communication: H. W. Drake, apparatus engineer, Western Union Telegraph Company, New York.

Education: Edward Bennett, professor of electrical engineering, University of Wisconsin, Madison, Wis.

Electrical Machinery: W. J. Foster, consulting engineer, General Electric Company, Schenectady, N. Y.

Electric Welding: A. M. Candy, welding engineer, Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa.

Electrochemistry and Electrometallurgy: G. W. Vinal, chief section of electrochemistry, Bureau of Standards, Washington, D. C.

Electrophysics: V. Karapetoff, professor of electrical engineering, Cornell University, Ithaca, N. Y.

General Power Applications: J. F. Gaskill, power engineer, Philadelphia Electric Company, Philadelphia, Pa.

Instruments and Measurements: Everett S. Lee, in charge insulation division, General Engineering Laboratory, General Electric Company, Schenectady, N. Y.

Applications to Iron and Steel Production: M. M. Fowler, electrical engineer, General Electric Company, Chicago, Ill.

Production and Application of Light: B. E. Shackelford, chief physicist, Westinghouse Lamp Company, Bloomfield, N. J.

Applications to Marine Work: W. E. Thau, director of marine engineering, Westinghouse Electric and Manufacturing Company, New York.

Applications to Mining Work: Carl Lee, electrical engineer, Peabody Coal Company, Chicago, Ill.

Power Generation: F. A. Allner, general superintendent, Pennsylvania Water and Power Company, Baltimore, Md.

Power Transmission and Distribution: H. R. Woodrow, electrical engineer, Brooklyn Edison Company, Inc., Brooklyn, N. Y.

Protective Devices: E. A. Hester, planning engineer, Duquesne Light Company, Pittsburgh, Pa.

Research: F. W. Peck, Jr., consulting engineer, General Electric Company, Pittsfield, Mass.

Transportation: W. M. Vandersluis, electrical engineer, Illinois Central Railroad, Chicago, Ill.

In accordance with the by-laws of the Edison medal committee, the board of directors confirmed the appointment by President Schuchardt of new members of the Edison medal committee, for terms of five years each, as follows: Charles F. Brush, electrical engineering physicist, Cleveland, Ohio; D. C. Jackson, professor of electrical engineering, Massachusetts Institute of Technology, Cambridge, Mass., consulting engineer, Jackson and Moreland, Boston, Mass., and Elmer A. Sperry, chairman of board, Sperry Gyroscope Company, Brooklyn, N. Y. The board also elected three of its membership to serve on the Edison medal committee for terms of two years each, namely, Bancroft Gherardi, vice-president and chief engineer, American Telephone and Telegraph Company, New York; H. A. Kidder, superintendent of motive power, Interborough Rapid Transit Company, New York, and E. B. Merriam, engineer, switchboard department, General Electric Company, Schenectady, N. Y.

F. L. HUTCHINSON,
National Secretary