alone for his view, credit is given and the literature cited.

In the general part, the incompleteness of the chapter on 'Organology' is noticeable. While in many respects the material has not been sufficiently worked up, in other respects it has been carried beyond the borders of comparative histology. In the general part, the chapter on 'Architectonics,' the different planes of organization of the Metazoa have been discussed, and at the close of the chapter a system (page 238) has been devised which is the key to the systematic arrangement of the special part.

Histology, in this book, is not considered entirely in the sense of microscopic anatomy, but primarily as morphological cytology. Tissues are associations of cells of the same sort. In discussing tissues the author concerns himself first with their structural characteristics, but secondly, also with their relation to the composition of the entire organism.

The dividing of the Metazoa into two principal groups, the Pleromata and the Cœlenterata, is based, for a great part, on histologic grounds.

It is very evident the author has worked with a plan or outline in hand which has enabled him to produce a well-written, usable book. Of the 691 illustrations many are excellent, while only a few give one the feeling that the work was done under pressure. As a work of reference the book is very valuable, for it embodies not only much that is original, but the results of hundreds of investigators have been worked over and embodied in the text. As a text-book it is, of course, entirely too bulky to be considered. Still when one considers the remarkable activity in Germany in the field of microscopic anatomy as illustrated in Oppel's 'Vergleichende Mikroskopische Anatomie der Wirbeltiere,' three large volumes with a total of 2,400 pages in which the author has but completed his consideration of the alimentary tract, one is led to feel that in another decade Schneider's work may be a primer.

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SOCIETIES AND ACADEMIES.

AMERICAN MATHEMATICAL SOCIETY.

THE tenth summer meeting and fourth colloquium of the American Mathematical Society were held at the Massachusetts Institute of Technology during the week August 31 to September 6, 1903. Forty-seven members of the society attended the sessions of the regular meeting, which occupied the first two days of the week. The colloquium opened on Wednesday morning, with a total attendance of thirty-one. Three courses of lectures were given, as follows: Professor E. B. Van Vleck, of Wesleyan University, six lectures on 'Selected Topics in the Theory of Divergent Series and of Continued Fractions'; Professor H. S. White, of Northwestern University, three lectures on 'Linear Systems of Curves on Algebraic Surfaces'; Professor F. S. Woods, of the Massachusetts Institute of Technology, three lectures on 'The Connectivity of Non-Euclidean Space.'

The following persons were elected to membership in the society: Professor D. P. Bartlett, Massachusetts Institute of Technology; Professor C. E. Comstock, Bradley Polytechnic Institute, Peoria, Ill.; Mr. H. N. Davis, Harvard University; Mr. W. J. Graham, New York, N. Y.; Mr. N. J. Lennes, Chicago, Ill.; Mr. T. J. McCormack, La Salle, Ill.; Dr. L. I. Neikirk, University of Pennsylvania; Dr. A. B. Pierce, University of Michigan; Professor W. J. Rush, Iowa College; Miss M. E. Trueblood, Mt. Holyoke College; Mr. C. B. Upton, Columbia University; Dr. Oswald Veblen, University of Chicago; Mr. R. H. Williams, Columbia University. Seventeen applications for membership were received.

The committee on definitions of college entrance requirements in mathematics, appointed at the summer meeting of 1902, presented a report, which was received and recommended for publication. The report will appear in the *Educational Review* and in the *Bulletin* of the society. A committee was appointed to prepare for the October meeting a list of nominations of officers and members of the Council for the year 1904.

The following papers were read at this meeting.

I. J. SCHWATT: 'On the length of curves.'

T. J. I'A. BROMWICH: 'Similar conics through three points.'

D. R. CURTISS: 'Binary families in a triply connected region, with especial reference to hypergeometric families.'

JOHN EIESLAND: 'On a certain system of conjugate lines on a surface transformable into asymptotic lines by means of Euler's transformation.'

EDWARD KASNER: 'A class of conformal transformations.'

EDWARD KASNER: 'Notes in the theory of surfaces.'

E. R. HEDRICK: 'Note on the existence of a continuous first derivative.'

G. A. BLISS: 'Jacobi's condition in the calculus of variations when both end points are variable.'

ARNOLD EMCH: 'Note on the p-discriminant of ordinary differential equations of the first order.'

HELEN A. MERRILL: 'On a notable class of linear differential equations of the second order.'

FLORIAN CAJORI: 'On the circle of convergence of the powers of a power series' (preliminary communication).

E. T. WHITTAKER: 'An expression of certain known functions as generalized hypergeometric functions.'

W. H. YOUNG: 'On a test for non-uniform convergence.'

J. I. HUTCHINSON: 'On the automorphic functions of signature (0, 3; 2, 6, 6).'

B. O. PEIRCE: 'On the lines of certain classes of solenoidal or lamellar vectors symmetric with respect to an axis.'

H. T. EDDY: 'The multiplication of complex numbers and of vectors compared.'

J. N. VAN DER VRIES: 'On monoids.'

JACOB WESTLUND: 'On the congruence $x\phi(P) \equiv 1 \bmod. P^n.$'

ALFRED LOEWY: 'Zur Gruppentheorie mit Anwendungen auf die Theorie der linearen homogenen Differentialgleichungen.'

SAUL EPSTEEN: 'Semireducible hypercomplex number systems.'

L. E. DICKSON: 'On the subgroups of order a power of p in the quaternary abelian group in the Galois field of order p^n.'

L. E. DICKSON: 'The subgroups of order a power of 2 of the simple quinary orthogonal group in the Galois field of order $p_n = 8l \pm 3$.'

L. E. DICKSON: 'Determination of all groups of binary linear substitutions with integral coeffi-

cients taken modulo 3 and of determinant unity.'

L. E. DICKSON: 'Determination of all the subgroups of the known simple group of order 25920.'

L. E. DICKSON: 'The systems of subgroups of the quaternary abelian group in a general Galois field.'

C. N. HASKINS: 'On the invariants of quadratic differential forms.'

FRANK MORLEY: 'On projective coordinates.'

FRANK MORLEY: 'On a skew quadrangle covariant with six points of space' (preliminary communication).

E. B. WILSON: 'The projective definition of area.'

R. S. WOODWARD: 'On the values of the stretches and the slides in the theory of strain.'

R. S. WOODWARD: 'The radial compressibility of the earth compatible with the Laplacian law of density distribution.'

E. O. LOVETT: 'Periodic solutions of the problem of four bodies.'

E. O. LOVETT: 'Central conservative systems with prescribed trajectories.'

S. E. SLOCUM: 'Rational formulas for the strength of concrete-steel beams.'

A. S. CHESSIN: 'On a class of linear differential equations.'

C. M. MASON: 'On certain systems of differential equations: generalization of Green's functions, analytic character of the solutions.'

E. V. HUNTINGTON: 'A set of independent postulates for the algebra of logic.'

Pleasant social features of the meeting were the reception tendered to the society by Professor and Mrs. Pickering, at the Harvard College Observatory, where the rich collection of stellar photographs was visited under Professor Pickering's guidance; several informal and well-attended dinners and evening gatherings; and on Thursday afternoon an excursion to Nantasket in Boston harbor.

The next meeting of the society will be held at Columbia University, on Saturday, October 31.   F. N. COLE,
                                        Secretary.

DISCUSSION AND CORRESPONDENCE.

TOXIC EFFECT OF ACIDS ON SEEDLINGS.

IN a recent number of SCIENCE (Vol. XVIII., p. 453, September 4, 1903) there is a communication describing the effect of solutions of certain bases and acids upon seedlings