

which produces a trichocyst, or a "trichosome," which gives rise to a trichite.

Both the trichosome and the trichocytosome may, in at least certain species, reproduce themselves before forming their usual organelles. The basal granule is thus a visible cytoplasmic element which exhibits both polyvalency and genetic continuity, and can give rise to self-duplicating granules with different morphogenetic potencies. Furthermore, the basal granules of one region may differ in behavior from those in another area—an expression of regional differentiation within the body of the ciliate. The multiplication of basal granules, initiating the appearance of two new "morphogenetic fields" in the parental body, typically precedes the more obvious

processes in fission. The subsequent organization of the anterior and posterior regions of the adult into two daughter organisms is accompanied by the disappearance of various specialized parental structures.

This general body of facts, to which the author has made extensive contributions, has tempted him into various speculations concerning the significance of basal granules in ontogeny and phylogeny of ciliates. The result is a stimulating series of unanswered questions that will interest protozoologists in general and students of the ciliates in particular.

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Scientific Book Register

An Atlas of Human Anatomy. Barry J. Anson. Philadelphia: Saunders, 1950. 518 pp. \$11.50.

Morphology and Taxonomy of Fungi. Ernst Attearn Bessey. Philadelphia: Blakiston, 1950. 791 pp. \$7.00.

The Private Life of the Protozoa—And of Their Neighbors, the Metazoa and the Insect Larvae. Winifred Duncan. New York: Ronald, 1950. 141 pp. \$3.00.

Halloween through Twenty Centuries. Ralph and Adelin Linton. New York: Schuman, 1950. 108 pp. \$2.50.

George David Birkhoff: Collected Mathematical Papers, 3 vols. New York: American Mathematical Society, 1950. 2,634 pp. \$18.00 the set.

Chemical Embryology. Jean Brachet. Translated from 2nd ed. of "Embryologie Chimique" by Lester G. Barth. New York: Interscience, 1950. 533 pp. \$8.00.

Thoracic Surgery. Richard H. Sweet. Philadelphia: Saunders, 1950. 345 pp. \$10.00.

Advanced Organic Chemistry. Reynold C. Fuson. New York: Wiley; London: Chapman & Hall, 1950. 669 pp. \$8.00.

Response of Physical Systems. John Dezendorf Trimmer. New York: Wiley; London: Chapman & Hall, 1950. 268 pp. \$5.00.

Manual of Rice Diseases. G. Watts Padwick. Kew, Surrey, Engl.: Commonwealth Mycological Institute, 1950. 198 pp. \$4.50.

Dirichlet's Principle, Conformal Mapping, and Minimal Surfaces. R. Courant. New York: Interscience, 1950. 330 pp. \$4.50.

Immortal Magyar: Semmelweis, Conquerer of Childbed Fever. Frank G. Slaughter. New York: Schuman, 1950. 211 pp. \$3.50.

Paiute Sorcery. Beatrice Blyth Whiting. New York: Viking Fund, 1950. 110 pp. \$1.50.

A Theory of Cross-Spaces. Robert Schatten. Princeton, N. J.: Princeton Univ. Press, 1950. 153 pp. \$2.50.

Physiology and Anatomy. 6th ed. Esther M. Greisheimer. Philadelphia: Lippincott, 1950. 841 pp. \$4.00.

Nuclear Data: A Collection of Experimental Values of Half-lives, Radiation Energies, Relative Isotopic Abundances, Nuclear Moments, and Cross Sections. Compiled by the National Bureau of Standards Nuclear Data Group. Washington, D. C.: U. S. Government Printing Office, 1950. 309 pp. \$4.25 including future supplements.

The Birds of Greenland, Part I. Finn Salomonsen; illustrated by Gitz-Johansen. Copenhagen, Denmark: Einar Munksgaard, 1950. 157 pp. and 17 plates. \$9.00.

Introduction to Textile Chemistry. Bruce E. Hartsuch. New York: Wiley, 1950. 413 pp. \$4.75.

Giordano Bruno: His Life and Thought. With annotated translation of "On the Infinite Universe and Worlds." Dorothea Waley Singer. New York: Schuman, 1950. 389 pp. \$6.00.

A Textbook of Biochemistry. 2nd ed. Philip H. Mitchell. New York: McGraw-Hill, 1950. 695 pp. \$6.00.

Linear Integral Equations. Reprint. William Vernon Lovitt. New York: Dover, 1950. 253 pp. \$3.50.

TV Installation Techniques. Samuel L. Marshall. New York: Rider, 1950. 330 pp. \$3.60.

Plastic and Reconstructive Surgery: A Manual of Management. Ferris Smith. Philadelphia-London: Saunders, 1950. 895 pp. \$15.00.

Bertrand Russell: A Pictorial Biography. H. W. Leggett. New York: Philosophical Library, 1950. 78 pp. \$3.75.

Techniques in British Surgery. Rodney Maingot, Ed. Philadelphia-London: Saunders, 1950. 733 pp. \$15.00.

Swine Production. W. E. Carroll and J. L. Krider. New York: McGraw-Hill, 1950. 498 pp. \$5.00.

The Urinary Function of the Kidney. A. V. Wolf. New York: Grune & Stratton, 1950. 363 pp. \$7.50.

Annual Reports on the Progress of Chemistry for 1949, Vol. XLVI. R. S. Cahn, Ed. London, Engl.: The Chemical Society, 1950. 333 pp. 25/-.

Industrial Chemicals. W. L. Faith, Donald B. Keyes, and Ronald L. Clark. New York: Wiley; London: Chapman & Hall, 1950. 652 pp. \$8.00.