

search and in training investigators, for the next 6 years. During this period he became dean of the University of California School of Medicine.

In 1920, he accepted the invitation of wise Rush Rhees, president of the University of Rochester, to be the dean and organizer of the newly planned medical school there. The main supporters of this new school—a “post Flexner Report school”—were George Eastman and Abraham Flexner, representing the General Education Board of the Rockefeller Foundation. Under Whipple’s guidance and management, the School of Medicine and Dentistry has had a brilliant and beneficial career, thoroughly educating medical students for basic and clinical studies and service, and providing, in an original manner, for the development of scientists and teachers in the fields of dentistry and oral pathology.

For many years, as an influential adviser on local, national, and international medical research affairs, Whipple was one of the men who guided policies and actions of the Rockefeller Foundation and the Rockefeller Institute for Medical Research.

A book review does not have the space for even a list of Whipple’s honors, or for more than a brief mention of his love of the out-of-doors and his prowess as a hunter and fisherman. He can catch a trout or tarpon on approximately the same tackle. He can shoot a pheasant coming or going, at any altitude. He can dispense wisdom with shrewdness and a twinkle. All of these characteristics, and more, can be traced through the excellent index at the end of this volume.

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Ideal Topic, Perfect Author

An Introduction to Molecular Kinetic Theory. Joel H. Hildebrand. Reinhold, New York; Chapman and Hall, London, 1963. xii + 105 pp. Illus. Paper, \$1.95.

Recently many attempts have been made to extend the textbook treatment of important topics in chemistry in order to challenge serious students, but few if any have been so successful as this volume. Kinetic theory is an ideal topic for such treatment, and Joel Hildebrand is the perfect author. His

humor and unmatched teaching skills are continually evident in the many well-chosen topics he has here joined together.

After a discussion of the ideal gas, which includes degrees of freedom of polyatomic molecules and interesting discussions of sound velocity and sedimentation gradient, real gases are treated. Various equations of state are presented, and the discussion of real gases ends with sections on intermolecular forces and gas mixtures. The latter topics provide a smooth transition to the last section on liquids, solids, and solutions. Here Hildebrand gives a concise summary of his own treatments of solubilities and regular solutions.

The treatment throughout is sufficiently rigorous for a serious freshman student to find it profitable, but mathematics is used only to the degree necessary for the topic at hand. Primary emphasis is placed on understanding concepts rather than on the derivation of formulas. Occasionally, calculus is required, and the author wisely includes it in a way that should demonstrate to the student the utility of the mathematics he is studying, without discouraging the student who knows no calculus. Imaginative questions that, like the rest of the book, should introduce the student to the joy of actually thinking are provided at the end of two chapters.

Hildebrand’s book should serve well its intended purpose—that of stimulating the beginning science student. It should be required reading for all who teach high school or college science. It most certainly is enjoyable reading for anyone interested in fundamental science.

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Hybrid Corn

Professor’s Story of Hybrid Corn. Herbert Kendall Hayes. Burgess, Minneapolis, Minn., 1963. vi + 237 pp. Illus. \$6.50.

Hybrid corn has been called “the most far-reaching development in applied biology of this century.” The statement may well be true. Owing to the development of hybrid corn and the improved cultural practices that have accompanied its use, acre yields of corn

in the United States have exactly doubled in the 30-year period between 1929 and 1959. Now hybrid corn is contributing significantly to increased food production in the countries of Latin America and of southern Europe.

Herbert Kendall Hayes was one of the pioneers in this revolutionary development, and he trained many of the plant breeders who later participated in it. In this slender volume written after his retirement, Hayes, the dean of American plant breeders, describes the early studies in theoretical genetics—made by George H. Shull, Edward East, Donald F. Jones, and Hayes himself—which furnished the basis for the methods of hybrid corn production. His personal acquaintance with these pioneers and with their studies has enabled him to write an interesting account of the early days in the development of hybrid corn.

The larger part of the book is devoted to technical aspects of producing hybrid corn: selecting and testing the inbred strains, employing the inbred strains in various kinds of hybrids, breeding for resistance to disease and insects and for chemical composition and other special purposes. On all of these aspects the author writes from personal experience and from a wide acquaintance with the extensive published literature. The final chapter, “What of the future,” stresses the need for basic research on heterosis, the biological phenomenon that the production of hybrid corn has so successfully exploited. There is an extensive bibliography which, however, contains some curious omissions. Otherwise the book represents an objective, authentic, interesting, and readable account of the highly successful application of theoretical genetics to the improvement of America’s principal food plant.

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The Platte River Syndrome

Natural History. Richard A. Pimentel. Reinhold, New York; Chapman and Hall, London, 1963. xii + 436 pp. Illus. \$9.75.

This is certain to be a controversial text because it is so easy to point to it as an example of the Platte River syndrome—a mile wide and 6 inches