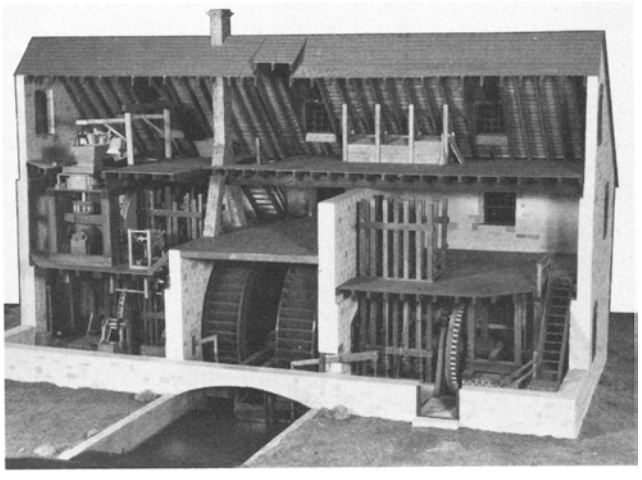
Publications

Book Reviews



This scale model shows the interior of the Bethlehem oil mill building as it looked in 1766. The left waterwheel (center) powered the oilseed mill (lower left) and the groat mill (upper left). The right waterwheel drove the hemp, tanbark and snuff stamping mills (lower right). This model was constructed by Stephen Young for display at the restored Moravian tannery building in Bethlehem, PA.

The Bethlehem Oil Mill 1745-1934: German Technology in Early Pennsylvania, by Carter Litchfield, Hans-Joachim Finke, Stephen G. Young and Karen Zerbe Huetter (Olearius Editions, Drawer H, Kemblesville, PA 19347, 1984, 128 pp., $22.50).

This book provides a fascinating glimpse, covering two centuries, into the history of an early American oil processing industry. Easy to read and fully illustrated, the first chapters of this book lead the reader through the History of Industry in Early Bethlehem, the Moravian Oil Mill Complex (1745-1814), the Lower Grist Mill, and Water Works (1814-1934). This part of the book will probably be read in one absorbing sitting. Then, on reflection, and prompted by a growing curiosity, the reader finds himself returning to browse the remaining chapters and appendices describing the primitive unit operations of this early diversified industry, marveling at the artistic quality, detail and clarity of the 1766 Herrnhut drawing of the water power system, oilseed crushing mill, tanbark mill, groat mill and even a snuff mill!

For those readers with an operator's interest, there is the "Oil Mill Diary," an English translation of a bound volume held in the Moravian Archives in Bethlehem, Pennsylvania, with original entries in German script. Here one reads "of the perils of hauling stones on sleds across the frozen Lehigh River, the elation when the rafters went up, the days taken for fishing or for bleeding and the joys of starting up completed machinery." For those with an economic bent, there is similarly translated and also preserved in the Moravian Archives the "Oil Mill Account Book." These figures and notes from the past speak eloquently of the living that day. For the engineers, there is "Calculating Masonry at the Old Mill." For those who wish an insight into the minds and motivations of the project leaders—what

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made them tick, how they viewed themselves, their contemporaries and their work—there are the appended memoires of Hans Christophe Christensen and John Arbo.

All in all, it is an intriguing, pleasant and enriching account of history. Available only by mail from the publisher, this volume will join the publishers' other unique translation, from the Japanese, "Seiyu Roku, on Oil Manufacturing." For the oil chemist, engineer, operator or executive who "takes a moment to smell the roses," this new book will constitute a refreshingly gracious library addition.

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Handbook of Vitamins: Nutritional, Biochemical and Clinical Aspects, edited by L.J. Machlin (Marcel Dekker, Inc., 270 Madison Avenue, New York, NY 10016, 1984, 632 pp., $79.50, U.S. and Canada, $95.25, others).

One often encounters an uneven quality of chapters in edited books of this type. However, in this case, the editor has done an excellent job of bringing together a good group of authors as well as setting up a standard chapter format that is both easy to follow and informative to the reader. The result is a very good source book on vitamins for the advanced student.

This text is divided into 15 chapters, 13 on individual vitamins and two covering choline, carnitine and other substances without vitamin status for humans. The latter two chapters contain information not readily available in other textbooks. The chapters are structured to give the history of the vitamin, the chemistry, the availability and content in food, metabolism, function, deficiency symptoms and method of evaluating status, nutritional requirements, the interaction of the vitamin with other substances in food and with various diseases, and the efficacy and safety of high doses of the vitamin. All chapters are well-referenced with most supplying references up to 1982. Unfortunately, a few chapters are not that up-to-date, covering only up to 1980. There is also an interesting appendix containing recommended dietary requirements for 28 different countries and the FAO.

A big plus for this book is the clarity and conciseness of its figures and tables that show chemical structures, biochemical pathways, excretion products, food sources of the vitamin and recommended dietary allowances for various age groups for different vitamins. The only negative points for this reviewer are the rather liberal nature taken by some authors toward megadose supplements.

Despite a few shortcomings, this book is highly recommended for those who desire an advanced treatment of the vitamins. This text offers a more clinical approach than most and is therefore especially applicable for medical students or physicians. The oil chemist who desires an easy to use, high quality reference for vitamins will not be disappointed with this book.

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New Publications

Kirk-Othmer Concise Encyclopedia of Chemical Technology, abridgement of Volume 3 of a 26-volume set, John Wiley and Sons, 605 Third Ave., New York, NY 10158, 1985, 1300 pp., $99.95 until July 1, 1985, thereafter $129.95.

Rice Bran Oil Industry, by Abhay Sah and U.K. Srivastava, Concept Publishing Company, H-13, Bali Nagar, New Delhi, 110015, India, 1985, 240 pp., Rs. 150, $30.

Manual of Olive Oil Technology, Food and Agriculture Organization, Unipub, 205 E. 42nd St., New York, NY 10017, 1984, 164 pp., $12.50.

"Soyfoods in the Far East and USA—Products, Markets, Trends," a paper presented by Steve Chen at the First European Soyfoods Workshop held in Amsterdam in September 1984, is available from the American Soybean Association's Taiwan office, P.O. Box 3512, Taipei, Taiwan R.O.C. 100. Copies of the 36-page paper, which are being offered free, are limited.