Book Reviews

Leaders of Higher Education

The Academic President—Educator or Caretaker? Harold W. Dodds. McGraw-Hill, New York, 1962. ix + 294 pp. $5.95.

As a youthful faculty member, I questioned Prexy, Alan Valentine, then president of the University of Rochester, about why he so frequently quoted Harold W. Dodds of Princeton. Valentine replied that he regarded Dodds as an experienced, unusually thoughtful president who knew his job. When Dodds retired in 1957, after serving in that high office nearly a quarter century, he was generally so regarded by those in a position to know. There was, therefore, both satisfaction and anticipation when he was commissioned by the Carnegie Foundation to write a book on the college president.

The Academic President—Educator or Caretaker is, like its author, a solid success. It is essentially a "how to do it" book, but it is also a textbook with a welcome theme. It records not only the experience and wisdom of former President Dodds but also his observations based on a nationwide investigation of higher education, with particular reference to its presidential leadership.

In chapters 1, 2, 9, and 10 Dodds makes it clear that the purpose of higher education is to foster intellectual growth. The president is to spend 50 percent, not 10 to 20 percent, of his time spurring along that intellectual development. To the big implied question, "Can today's college or university president be both an effective administrator and an effective educational leader?", Dodds does not simply answer, "Yes." He goes on to explain how it can be done. He would delegate noneducational duties but not have the president forget them. Moreover, he insists that leadership of an academic institution requires a high-level intellectual and academic background more than it requires national prominence or great achievement in some nonrelated sphere. Aspects of the presidential job that may entice a president into becoming merely a high-level caretaker may not be as easily separated from the obvious aspects of educational leadership as Dodds suggests. But, the author does some helpful delineating of the role of educational leadership which he advocates. Leadership, he makes clear, is exercised in the special world of *academia* by conversing and questioning, by stimulating, inspiring, even prodding, by evaluating, planning, and goal setting, by innovating, and ultimately by decision-making, To be an *educator,* a president must be involved in curricular matters, student affairs, the selection and retention of teaching and nonteaching staffs. He must utilize every opportunity to move an institution toward common goals, without interfering in educational minutiae or disregarding the constitutional realm of the faculty. The academic president, one gathers, should be, at the same time, never satisfied but ever patient. Dodds realistically explains, "The President needs a nervous constitution that will enable him to live habitually at a focal point of conflicting pressures."

If the academic presidency is to regain a more uniform and consistent character so that the office does not "go the way of the buffalo," this book should be read widely. Dodds wisdom is not directed to presidents alone, but to faculty members, trustees, alumni, and even state officials. Only if the trustees, for example, understand and accept the educational leadership role of the president and allow him to lead them, indeed *insist* that he lead them, will he have the confidence to exercise this leadership with respect to faculty, students, and alumni.

An academic president, who holds this broad leadership concept and who has the support of his trustees, may still have difficulty. The current in some elements of college and university faculties—specialized though they have become, often to the neglect of their common educational responsibilities—seems to be running against Dodds vital concept: revitalization of the presidency. With all the difficulties, with myriad administrative, financial, and promotional functions, and with excessive demands on time and energy, both external and internal, the admonitory theme—be an educator—is ever recurring. Dodds, always good-humored, gives assurance that "contrary to some well-publicized opinion, the office is rich in personal and intellectual satisfactions."

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Challenger of Man

The World of Ice. James L. Dyson. Knopf, New York, 1962. xxx + 292 pp. Plates. $6.95.

James L. Dyson, professor and head of the department of geology and geography at Lafayette College, has set out, in this book, to write a popular account of "the world of ice," and he has succeeded brilliantly. Every aspect of ice—in, on, and under land and water—is covered, and by combining a simple style with an anecdotal approach, the author has dramatized and made readily understandable the strangeness and wonder of ice in its many forms.

In discussing the effects of ice on human life, the main theme of the book, Dyson details examples of local glacier advances, such as that of the Black Rapids Glacier (in Alaska) which moved forward as much as 200 feet a day in 1936 and 1937, and he also describes what would happen should another Ice Age come to North America.

The book begins with the falling of snowflakes and tells where and why snow stays and how it turns to ice. The processes of glacier formation and the form, mechanics, and influence of glaciers are then discussed. This leads to a description of the major continental glaciers and the polar ice packs. A short chapter deals with life on ice, and another with ground ice and permafrost. The book ends with a discussion of past ice ages and of changes in cli-

mate. Along the way such diverse and entertaining topics as the fate of the Donner Party, ice worms, frozen Norsemen at Herjolfsnes, the absence of snakes in Ireland, and the Abominable Snowman are discussed.

Dyson's style is personal, immediate, and lightly whimsical at times; even such familiar topics as the processes of mountain glaciation take on a new freshness when he writes about them. The author never confuses popularization with oversimplification, and a note of scientific caution pervades the book. Dogmatic assertions and personal axes are absent.

An excellent selection of photographs adds to the value of the book, which is also carefully indexed. An extensive and comprehensive bibliography cites standard works as well as the relevant current literature on ice.

For the layman who knows nothing about ice, this book opens up exciting vistas. For students in geology and geography, it will provide a valuable and fascinating introduction to the world of ice.

Dyson obviously enjoyed writing the book. By combining the best of a textbook with the appeal of a popular book, he has assured equal enjoyment for all who read it.

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Brief Overview

Inorganic Reactions and Structure. Edwin S. Gould. Holt, Rinehart, and Winston, New York, ed. 2, 1962. xiv + 513 pp. Illus. $6.50.

During the past 7 years the first edition of this book has been widely popular as an inorganic chemistry text, deservedly so, since at the time of its publication texts which provided a modern treatment of inorganic chemistry were rare indeed. The revised edition has therefore been awaited with interest, for in recent years several other texts, with different approaches to the subject, have been published.

The new edition of Gould's book, like the first, attempts to provide a survey covering all major aspects of modern inorganic chemistry. It is clearly impossible to accomplish this with any reasonable degree of thoroughness in a book of this size, for the large body of descriptive material that has recently become available and the background material that is needed to satisfactorily explain the many examples of the use of molecular spectroscopy and kinetics to determine the structure and reactions of inorganic compounds both require adequate space for presentation. Consequently, Gould's book provides the reader with only a superficial treatment of most aspects of the subject matter and of its allied disciplines, such as molecular spectroscopy, which he also discusses. In those educational establishments where only a half-year course is offered, more or less as lip service to the teaching of inorganic or physical-inorganic chemistry, the new edition could well be useful as a text. As such, it will demonstrate to students whose interests lie primarily in other areas of chemistry what, in general, the practice of inorganic chemistry consists of today, and it will familiarize them, on a conversational level, with the significant discoveries made in recent years. It is to be hoped, however, that the training of future professional chemists will include a more detailed survey of inorganic chemistry than this book provides. I believe teachers of inorganic chemistry should strive to introduce more inorganic and physical-inorganic chemistry into the curriculum. If the attempt is successful, or if fewer topics are to be covered in depth within the given period, other less cursory texts, including some recently published, are more suitable for use.

The revision, like its predecessor, provides extremely useful exercises at the end of each chapter. The bibliographies, also at the end of each chapter, have been expanded, reflecting the increased amount of reference material now available. The separate chapter on inorganic reaction mechanism is a valuable addition. There are a number of errors in some of the figures; among the more serious is the erroneous presentation of the structure of manganese carbonyl with bridging carbonyl groups (page 158). The correct structure, containing a metal-metal bond joining two octahedrally disposed $Mn(CO)_5$ groups in staggered conformation (D_{4d}) was determined by x-ray diffraction and reported in 1957 (Dahl, Ishishi, and Rundle). The structure containing bridging cyanide groups with three-center Ni·C·Ni bonds for $Ni_2(CN)_6^{4-}$ (page 402) is based on what are now believed to be unreliable x-ray data. Two groups of workers, El-Sayed and Sheline (1956) and Griffith and Wilkinson (1958), have presented other results in favor of the earlier proposed Mellor-Craig structure (nickel-nickel bond joining two square planar $Ni(CN)_3^{2-}$ groups).

Two other figures require comment, because they contain errors carried over from the first edition. Some qualifying remarks should have been included to explain the unusual representation of the copper (II) chelate of acetylacetone on page 344. The chelated form of this ligand is usually written without the hydroxylic proton, especially when a straight line rather than an arrow is used to connect that oxygen to the metal, and the complex should then also bear one less positive charge. Finally, the negative charges on the quadridentate molecule (IV) on page 341 are missing.

In spite of the foregoing criticism, the second edition of *Inorganic Reactions and Structure* provides its reader with a glimpse of modern inorganic chemistry not duplicated in any other book of its size.

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Nontechnical Exposition

Use and Abuse of Statistics. W. J. Reichmann. Oxford University Press, New York, 1962. 336 pp. Illus. $5.

This is not a book for statisticians; it is for the general reader, say, a man who has forgotten algebra but who likes arithmetical puzzles, or one who once tried to use a book on statistics and found that it contained too many formulas but who enjoys the business section of his newspaper. The book is about as nontechnical as is possible for one that claims to treat statistics. At no point should any reader find that his mathematics are inadequate for reading the material. This, of course, means that hardly any understanding of the mathematics of statistics is proffered.

The tone of the book is informal but sober. It is chatty, and occasionally it manages to draw two or three illustrative metaphors of widely different character into a single paragraph. The prose