Book Reviews

Clarence King. A biography. Thurman Wilkins. Macmillan, New York, 1958. xii + 441 pp. $7.50.

There is a dashing quality to the figure of Clarence King exploring the high Sierras at 20 and leaving Washington at 24 as United States Geologist in charge of the Fortieth Parallel Survey—a commission which Secretary Stanton told him was wanted by four major generals. King thirsted for adventure, whether it was hunting buffaloes, outwitting Apaches, or wrestling fever in Nicaragua or "old gold girls" in Hawaii. He went down the mines at Butte impeccably attired in clothes freshly cleaned and pressed by his valet. Henry Adams deferred to him on matters of art and poetry. He visited a Cuban revolutionary in a cell at Santiago and dined with Henry James in London. Perhaps he described pursuing a grizzly into a mountain cave in the tête-à-tête he held with the Prince of Wales at "Ferdy" de Rothschild's.

King was an expert witness, whose appearance in many a Western courtroom brought certain victory for his mine. He moved freely between the saloons of Leadville and the Players or the Century in New York. King at 30, exposing the great diamond hoax, might have been invented by Walter Mitty or a Douglas Fairbanks script-writer: "There's not enough money in the Bank of California to make me delay publication a single hour. If you don't publish, *I* will. But it will come with much better grace from you."

Clarence King led two lives in more than one sense. In his young-manhood he joined with Whitney and Powell and Emmons in the great period of the geological exploration and discovery of the American West. This carried him to fame and the directorship of the then new United States Geological Survey. But he resigned his post after a year of solid accomplishment to devote himself to "expertizing" and the promoting of mines and of himself. King was the golden boy who lived on into the gilded age, and the ambiguities of the period were reflected in the man. When he left the august company at Roosevelt's Boone and Crockett Club, or Pierre Lorillard's Tuxedo, it was to slip into Brooklyn as James Todd, a porter, to visit his Negro wife and children.

Thurman Wilkins has written a careful and meticulous account of "the most remarkable man of our time." How did it happen, asked Henry Adams, that he could leave no more trace than one of Walcott's fossils? King emerges somewhat pale and shaken from the pages of this biography, which gives a sober, scholarly, and disquieting view of one man's headlong flight into oblivion.

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Particulate Clouds: Dusts, Smokes and Mists. Their physics and physical chemistry and industrial and environmental aspects. H. L. Green and W. R. Lane. Van Nostrand, Princeton, 1957. xix + 425 pp. + plates. Illus. $11.25.

This treatise on particulate clouds originated at the Chemical Defense Experimental Establishment at Porton Downs, England. Sir Harold Hartley, in the foreword, points out the important role which this chemical warfare station has played in the development of protective measures against smokes, as well as in the production of protective smokes. The authors and their colleagues have, in their fundamental work on particulates, contributed to various sampling techniques, production of particles of uniform size and atomization, production of high-efficiency filters for protection in dusty operations and in atomic energy establishments, and development of spray methods for insect control.

The book is a most valuable account of the scientific studies and practical applications in this field, and only the personal contact which the authors have had, over many years, with its development has made this possible.

The first part of the book contains studies on the basic physics and physical chemistry of particulate clouds and treats them as unified systems, since many different types of clouds have essentially the same properties. In eight chapters the production of particulate clouds, their physical characteristics, coagulation, deposition and filtration, analysis, and diffusion in the atmosphere are discussed.

The second part illustrates a number of practical implications of part I and goes into somewhat more detail on technical and practical matters. For example, the chapter on collection discusses cyclones, scrubbing, electrostatic precipitation, and filtration methods of many kinds. The second part contains, in addition, chapters on health hazards, atmospheric pollution, aerosols in nature, and the uses of particulate clouds for signal smokes, therapeutic purposes, and industrial applications.

A textbook of this kind, which must have required many years of careful preparation, could not be expected to be completely up to date in this rapidly moving field. Neither does it pretend to be all-inclusive. It provides, however, a background for more intelligent sorting of the flood of articles published by air-pollution agencies.

The concern which the authors express about the vast and scattered literature on particulates and its sometimes unwarranted growth is shared by many in the field of air pollution. By bringing together most of the topics on particulates, and supplying a thorough literature reference list after each chapter—thereby providing opportunity to obtain more details if desired—the authors have done a real service to the worker in this field.

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Chemical Publications, Their Nature and Use. M. G. Mellon. McGraw-Hill, New York, ed. 3, 1958. x + 327 pp. Illus. $7.

When one sees an old friend in the form of a textbook newly revised after nearly 20 years, he naturally wants to know what is new and what has stayed the same. This review will attempt to answer the question for Mellon's new edition.

The framework of the book remains essentially the same as that of the second edition, but this volume is about 45 pages longer. It is a tribute to the careful writing and organization to note that a good deal of the text, perhaps one-half, has been carried over unchanged.

Almost all of the important book and periodical lists have been done over, however, with old material included where it is still pertinent and recent publications added where they are significant. Some of the latter are dated 1957.