Book Reviews

Fundamental chemistry: an elementary textbook for college classes. (2nd ed.) Horace G. Deming. New York: John Wiley; London: Chapman & Hall, 1947. Pp. xvi + 745. (Illustrated.) $4.00.

Teachers who are interested in a presentation of elementary chemistry which encourages thought and the development of a questioning and scientific attitude on the part of the student, teachers who are desirous of a treatment which is not repetitious to the student who has already had some training in chemistry, and students who are concerned with improving their own basic knowledge of chemistry will all welcome this new edition of Deming's *Fundamental chemistry.*

This book is truly a worth-while one and may be read with profit by teacher and student alike. It is logically written in a prose which is easy to follow and understand. It is orderly in its presentation and accurate in its information. It is thoroughly modern in its thesis, its approach, and its treatment of theory and fact. It is designed to present chemistry as a "manner of thinking" rather than as a "collection of facts," and to this end it encourages the student to thought through well-chosen questions, problems, diagrams, and illustrative examples.

Although addressed primarily to the chemistry major and to the individual who has some previous knowledge of the subject, the book can be adapted to others by limiting assignments to indicated selected topics. Theoretical concepts are presented gradually in conjunction with factual material, although treatment of the latter is much less comprehensive than in the ordinary beginning textbook, particularly with regard to the metallic elements. The book contains much explanatory information beyond that contained in most elementary treatments and is to be commended for its stress upon rigid definitions and its dimensional and reasoning approach to problems.

The book is free from significant errors.

THERALD MOELLER

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Visible speech. Ralph K. Potter, George A. Kopp, and Harriet C. Green. New York: D. Van Nostrand, 1947. Pp. xvi + 441. (Illustrated.) $4.75.

This book is a record of the work of the Bell Telephone Laboratories in converting speech sounds instantaneously and continuously into readable visible patterns.

The first section of the book briefly and nontechnically describes the "Direct Translator," which produces the pattern from the sound, and states that a group practiced with the instrument is able to communicate vocally among its members totally without benefit of hearing.

The second section comprises 225 pages of superbly illustrated and illuminated lessons in the art. More than 500 cuts illustrate "vocabulary" and tie the patterns to the vocal mechanisms which produce the sounds.

A third section (154 pp.) considers the principles of Visible Speech in relationship to such fields as speech correction and indicates its use in teaching vocal speech to the totally deaf. Some space is also taken up with cuts of the singing voice and even of instrumental music.

The book will be of interest to every student of speech and speech correction. It illuminates the mechanics of vocal sound production exceptionally well and completely.

Two of its authors are practiced speech teachers; the third, an engineer. In style it is nontechnical and exceedingly readable.

T. E. LYNCH

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Glacial geology and the Pleistocene epoch. Richard Foster Flint. New York: John Wiley; London: Chapman & Hall, 1947. Pp. xviii+589. (Illustrated.) $6.00.

According to the Preface, this book presents the principal facts of glacial geology and the Pleistocene epoch in compact form for geologists, ecologists, archaeologists, geographers, soil scientists, and other students of the Pleistocene. It is a summary of established data for the entire globe, and it indicates areas in which research is greatly needed.

The 23 chapters may be grouped as follows: (1) Summary; (2) The nature and properties of existing glaciers; (3) The nature of the record left by previous glaciers of the Pleistocene; (4) Glaciation of North America; (5) Glaciation of Europe; (6) Glaciation outside North America and Europe; (7) Relations between glaciation, mountain uplifts, changes in level of land and sea, former great lakes in dry continental areas, and the migrations of animals and plants; and (8) The relation of climatic fluctuations to glaciation.

This simplified table of contents does not give any idea of the wealth of detail in the book. Approximately 1,000 titles, of which about 17 per cent are in languages other than English, are listed in the bibliography. There are 30 tables, 20 photographs, 30 diagrams, and 40 maps, of which 6 are folded plates at the back of the book. The reader will wish to refer, in addition, to the large Glacial Map of North America (Flint, *et al.*, 1945), published separately by the Geological Society of America.

The author goes into considerable detail concerning a definition of the term Pleistocene, and his suggestion that the terms Tertiary, Quaternary, Recent, and Postglacial be dropped from formal nomenclature.

Yet this is more than a reference book. It is written with enthusiasm and makes interesting reading. One feels oriented at the same time to the achievements of glacial geologists during the last 100 years and to the prospect of further research to fill in the enormous gaps in our knowledge of the Pleistocene epoch. The reader is impressed with the fact that the Wisconsin Glacial Age is a present and continuing reality.

It is a satisfaction to note that the book is dedicated to the memory of the young glaciologist, Max Demorest (1910–1942).

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