ing how properly to master a task, could improve their pace gradually. We would conserve the most precious possession of man, the human brain.

All this would cost money. We would need larger libraries, larger faculties, more laboratories. Each student would want space where he could work at any time day or night. He would want a competent advisory force to afford him conferences when required. The investment should prove worth-while. Just now, we are particularly anxious to eliminate slipshod and irresponsible performance. We need dependable individuals and good performance. After World War II is won and we are accustomed to heavy taxes, we can devote a portion of the funds collected to "brain conservation."

ALEXANDER SILVERMAN

DEPARTMENT OF CHEMISTRY,
UNIVERSITY OF PITTSBURGH

# QUOTATIONS

## THE A.A.A.S. BULLETIN[1]

EVERY member of the American Association for the Advancement of Science will receive each month a new publication, of which this is the first issue. No formal subscription for it will be required of members of the association, for its cost to them is included in their annual dues.

Broadly speaking, the purpose of the *A.A.A.S. Bulletin* is to advance science which, of course, is the purpose of all the activities of the association. But the advancement of science has a continually expanding and changing meaning. When the association was founded science was classified largely as "natural philosophy" and "natural history." Since that time science has been divided and subdivided into numerous special fields. There are now more than a thousand scientific organizations in the United States and Canada.

With the expansion of science the needs for increasing avenues of publication have led to the establishment of many special scientific journals. There has not been, however, corresponding increases in the number of journals for science in general, nor have those in existence been able to increase appreciably, if at all, the number of pages they print per year. This has been true of *Nature,* SCIENCE and *The Scientific American.* Obviously the needs of the association for journals are much greater than they were thirty or forty years ago when it held only one meeting each year and had no divisions and fewer than half as many affiliated societies, and when its membership was only a fraction of its membership to-day.

As science becomes more and more specialized, it becomes increasingly important to maintain interconnections among its various fields. That this fact is realized by specialists in the fields of the natural sciences is proved by the numerous joint symposia of sections and societies that have been held at the meetings of the association. But to specialists in these fields the social sciences, generally speaking, have been regarded until recently as being in foreign lands. It has taken the shocks of war to teach men the now obvious fact that human beings are so interdependent that no group can isolate itself from the remainder, even on the lofty peaks of pure science. The association, with its sections in the fields of both the natural and the social sciences and with its many affiliated societies from both fields, is ideally constituted to furnish opportunities for exploring the interrelations of science and society.

Several times in the past scientists have largely failed to recognize the tides in human affairs which they themselves have created. For example, when Charles Darwin removed man from his lonely and barren pedestal of a special creation, his contemporaries did not realize that he had ascribed to man all the rich qualities that flow in the varied streams of life and all its possibilities for change. Now when the applications of science have removed all the physical barriers that have hitherto separated peoples from peoples, let not the fact escape scientists that they have opened the gates to both Paradise and Purgatory. Which shall be humanity's fate now depends in large measure upon the ideals with which they inspire the world.

In order that the association may function more effectively as an integrating agency for science and society during the war, after its close, and indefinitely in the future, this publication has been established by the executive committee. It enables the office of the permanent secretary to communicate directly with *all* the members of the association. This has been impossible, except by mail, because about sixty per cent. of the members receive SCIENCE and about forty per cent. *The Scientific Monthly.* Moreover, not many of the announcements that will appear in this bulletin will be appropriate for SCIENCE and none of them for *The Scientific Monthly,* both of which will continue to occupy the distinguished positions in American science that they have long held in the past. The

[1] Introduction to the first issue, March, 1942, published monthly by the American Association for the Advancement of Science. The Office of Publication is at North Queen St. and McGovern Ave., Lancaster, Pa. The Editorial Office is in the Smithsonian Institution Building, Washington, D. C. The names of the editors are not given.

new publication will supplement them and provide a new medium through which the affiliated societies may make announcements of their programs and of their undertakings of general interest.

There is a labor and financial aspect of the establishment of this publication which merits a few comments. To send out through the mails a communication from the office of the permanent secretary to all the nearly 24,000 members of the association is so costly in labor and money that there is always pressure to refrain from doing so. Many of these desirable communications will appear substantially in this publication at much less cost. As a matter of fact, taking all the items of labor, envelopes, paper and postage into account, the cheapest mail service hitherto available to the association for communication to all members is about eight times as costly as through this *A.A.A.S Bulletin*.—THE EDITORS.

# SCIENTIFIC BOOKS

## OIL FIELDS

*Stratigraphic Type Oil Fields.* A Symposium. A. I. LEVORSEN, editor. xii + 902 pp. Illustrated. Tulsa, Okla.: American Association of Petroleum Geologists. $5.50 ($4.50, members).

PETROLEUM geologists have long construed their task as primarily a search for structure in known or prospective oil-bearing regions. They have been prone to think of oil reservoirs as the product of deformative geological processes. With the rapid accumulation during recent years of descriptive literature of numerous oil fields, it has been increasingly evident that many effectively sealed reservoirs are not the sole product of deformation. Many are primarily lenticular sand bodies, favorably interleaved in oil-bearing horizons or occurring on planes of unconformities. Some are the result of variable porosity and permeability in either limestones or sands; others are due to pinch-out up-dip of sand horizons or to the erosional truncation of sands, subsequently overlapped by an impervious cover. The East Texas field, the largest ever discovered, is thought to belong in the latter category.

Though the true character of many such reservoirs had previously been appreciated, the discovery of the East Texas field brought sharply into focus the importance of the so-called stratigraphic trap in our search for new fields. It aroused anew the suspicion that the discovery of a large reserve of oil contained in such traps awaited the evolution of a better geological technique, capable of coping with this more difficult problem. Areal and subsurface geology, geophysical exploration based on seismic or gravity determinations—all are designed chiefly to decipher structural conditions and often fall short of offering clues to the presence of stratigraphic traps.

The present volume includes descriptions of thirty-seven oil and gas fields situated in the various producing districts of the United States which illustrate the types of stratigraphic traps mentioned above. It presents factual data which should be useful in the further search for pools of this type. "New principles of future oil discovery depend to a large extent on an understanding of past experience. . . . The present volume . . . is intended as a factual background on which a further approach may be made to the causes of oil and gas accumulation and also as a basis for the reasoning necessary to future oil-field discovery" (Foreword).

The large majority of the papers deal with the vagaries of sand deposition which result in clear-cut examples of stratigraphic traps. Of especial interest are those which reconstruct paleogeographic conditions to show that the sand bodies were deposited as off-shore bars, channel filling or other familiar shoreline phenomena.

Obviously sedimentation is the controlling geological factor throughout this symposium. The volume should therefore prove most useful as a reference work in this field. Another very useful feature is the extensive annotated bibliography including 227 references to papers dealing with the same subject matter in recent geological literature.

W. E. WRATHER

DALLAS, TEXAS

## ORGANIC CHEMISTRY

*Identification of Pure Organic Compounds. Tables of Data on Selected Compounds of Order I.* By E. H. HUNTRESS and S. P. MULLIKEN. xvii + 691 pp. New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd. 1941. $7.50.

ORDER I consists of compounds of carbon with hydrogen, or with hydrogen and oxygen. In this respect it resembles Volume I of Mulliken's four-volume work of the same title, which appeared in 1904. The general purpose, plan and function of the two, as well as the basis of primary classification, are similar. In other respects, however, they are quite different, so that this new compilation is not at all a new edition or revision of the earlier and well-known "Mulliken," but is an original contribution.

It differs from "A Manual for the Systematic Identification of Organic Compounds," by the same authors, which has appeared in mimeographed or