THE SEMICENTENNIAL VOLUMES

A Semicentennial History of the American Mathematical Society, 1888–1938. By
Raymond Clare Archibald. (American Mathematical Society Semicentennial Pub-
lications, vol. 1.) New York, American Mathematical Society, 1938. 12+262 pp.

Professor Archibald's book is in large part a compendium of facts about the
American Mathematical Society and its officers. It is more a reference book than the
story of the Society. The latter aspect is presented by his lecture published elsewhere
in this Bulletin. Biographies and bibliographies of the presidents and secretaries fill
one hundred forty-six pages of the two hundred sixty-two total. There are pictures
of the presidents, the secretaries, and one of the librarians. To the reviewer it is
this portion of the book which is most interesting and most valued. Almost every
American mathematician has fallen at some time directly under the influence of
one or more of our presidents; and their pictures, the brief facts of their lives with
the record of their publications, will be prized by each of us. Indeed, to anyone who
has been an attendant at many meetings all the more recent officers are friends, and
we are indebted to Professor Archibald for this record of them. The bibliographies
will be especially useful. Scripta Mathematica has published lists of the writings of
some of the younger mathematicians. Taken jointly with the present bibliographies,
these give us an interesting and useful index to an important part of American mathe-
matical literature.

The first ninety-eight pages of the book are as follows. Twenty pages at the begin-
ning can be described as the story of the Society. This story is not unlike the lecture
which Professor Archibald delivered in New York. There are more details, the ar-
rangement is different, and some things in the New York lecture are located in other
portions of the volume. There are twenty-one pages in the chapter headed Financial
Affairs, Special Funds. How important finances have ever been! Publication is a
major function of the Society and an expensive one. It is well to appreciate the dis-
interested service of those who have struggled with this problem. There are in this
chapter, too, detailed figures for those who want to understand our finances in some
detail. Chapters follow on The Bulletin, The Transactions, The Colloquium Lectures
and Publications, The Chicago Group, Annual Meetings, Summer Meetings, The
Josiah Willard Gibbs Lectureship, The Library. In this last chapter there is a picture
of David Eugene Smith. It is to be regretted that there is not also a picture of the
present librarian.

The volume as a whole is an interesting account of stirring achievement. As a
compendium of facts it will undoubtedly be widely used; as an album of American
mathematicians it will be treasured.

TOMLINSON FORT

Semicentennial Addresses. (American Mathematical Society Semicentennial Publica-
tions, vol. 2.) New York, American Mathematical Society, 1938. 6+315 pp.

The addresses contained in this volume were written, for the most part, for oral
delivery at the recent Semicentennial Celebration of the Society. Taken out of the
surroundings in which they were intended to function they have the character of
photographs which, although deprived of the colors of the original, give nevertheless
important and useful information concerning the scenes they depict. A detailed and

critical account of the papers in this volume is therefore out of place; it is, moreover, beyond the competence of the present reviewer.

For the information of the readers of this Bulletin, it should be recorded that the book contains eight papers which aim to present a conspectus of the contributions made on the American continent to various special fields of mathematics during the fifty years since the founding of the Society, followed by a general review of American activity in mathematical research during this period. Fortunately the authors have recognized that such a survey cannot leave out of consideration the work done in other parts of the world; the papers bear testimony to the fact that national boundaries cannot be made to circumscribe the field of mathematical research. These papers were written by men who have taken and are still taking an active part in the developments with which they deal; the average of their ages is considerably less than that of the Society.

In the order of their appearance in the volume the nine papers are the following: E. T. Bell, *Fifty years of algebra in America*, 1888 *to* 1938, pp. 1–34; J. F. Ritt, *Algebraic aspects of the theory of differential equations*, pp. 35–55; Norbert Wiener, *The historical background of harmonic analysis*, pp. 56–68; E. J. McShane, *Recent developments in the calculus of variations*, pp. 69–97; T. Y. Thomas, *Recent trends in geometry*, pp. 98–135; R. L. Wilder, *The sphere in topology*, pp. 136–184; G. C. Evans, *Dirichlet problems*, pp. 185–226; J. L. Synge, *Hydrodynamical stability*, pp. 227–269; G. D. Birkhoff, *Fifty years of American mathematics*, pp. 270–315.

There may be disagreement as to the extent to which the different chapters succeed in accomplishing their aim. Emphasis is bound to be determined to a large extent by personal preferences and points of view. The specialists in each separate field will find much to please them, even though the approval may not be unqualified. The chapter devoted to the calculus of variations, for instance, solves admirably the difficult problem of selection and stress. Besides giving a clear statement of what has been attained during the last quarter century, it indicates unsolved problems and unexplored regions, thus preparing the ground for future work. This feature, which receives more or less emphasis throughout the different chapters, gives the volume importance beyond its value as an account of past accomplishments. It raises the hope that when the record of the next half century in the history of the American Mathematical Society is written there will be at least as imposing a justification for congratulatory retrospect as the present document provides for the first fifty years.

ARNOLD DRESDEN