

1927, in which monkeys were used, thoroughly confirmed these findings and established for all time the virus nature of the malady.

The book is bound well. The paper is excellent. The type is large and easy to read. As a rule extensive bibliographies appear at the end of each chapter; the references have been well chosen, and those that have been checked are correct. The book is remarkably free from typographical errors. However, on page 691 Dr. Muench's name is misspelled, and on page 891, line 28, the word "protection" obviously should be "production."

One great fault to be found with the book is that it contains no index. This defect will decrease its usefulness for people who are not familiar with the subjects presented.

In spite of the errors and faults listed above, many of which are minor and relatively unimportant, the book as a whole provides a greatly needed discussion of diseases in a relatively new and very active field about which sufficient treatises for the practising physician and public health officer have not appeared. The part of the book dealing with rickettsial diseases is particularly good and one obtains the impression while reading it that experts in the field have taken a great deal of delight in presenting in a fascinating manner the results of their labors as well as those of their colleagues.

THOMAS M. RIVERS

THE ROCKEFELLER INSTITUTE FOR
MEDICAL RESEARCH,
NEW YORK, N. Y.

CALIFORNIA SHRUBS

An Illustrated Manual of California Shrubs. By HOWARD E. McMINN. xi + 689 pp. 775 figs. San Francisco: J. W. Stacey, Inc. 1939. \$5.00.

"THE object of this volume," to quote the opening paragraph of the author's preface, "is to present a systematic and descriptive account of the shrubs of California which will serve as a working manual for their identification by the forester, ranger, traveler, vacationist, teacher, landscape designer, gardener and student of nature. While primarily planned for the use of the general public, the book has been written to serve also the professional botanist who is interested in the native shrubs of California."

This is a broad objective and difficult to accomplish, but in my opinion the author has succeeded admirably. The descriptions are clear and concise, and the keys are well arranged. Those not versed in technical botanical terms will find a glossary in the back and an abbreviated "Gray's Lessons" in the introduction. Ecologists and plant geographers will be interested in the discussion of the ecological classification of plants and the various shrub formations in California. A feature of the book that will be useful to those

interested in cultivating native California plants is a chapter on the "use of California shrubs in garden design" contributed by Fred H. Schumacher. Some of the headings of this interesting chapter will suggest its character and scope: "Background Shrubs," "Accent Shrubs," "Ground Covers," "Shrubs for Hedges," "Shrubs for Rockeries and Wall Crevices," "Shrubs for Seaside Gardens," "Ornamental Fruits," "Woody Plants for the Perennial Border." Some 800 species and 200 varieties are recognized, and 775 of these are illustrated by text figures from line drawings or in the case of 20 species by full-page half-tones.

One familiar with the California flora will be surprised that a thousand species and varieties of "shrubs" are recognized, but the book is not limited to true shrubs. It also includes "woody vines, subshrubs, woody cushion plants and half shrubs." No doubt the clientele for whom the volume has been prepared will welcome the inclusion of these semi-woody plants, such for instance as 32 species of Penstemons, only 8 of which are really shrubs. The title is therefore a misnomer in that it understates the full scope of the work. But this is a refreshing fault, for many of our popular and semi-popular books on native plants err on the other side. Too often wild flower books and tree or shrub books are so titled that they give the impression that they cover all "America," whereas they include only those species found in the original thirteen colonies or some other restricted area.

One finds in scanning the pages that the floristic composition of the California lignescent flora (excluding trees) represents some sixty-five plant families. The families with twenty species or more are: Salicaceae (27), Polygonaceae (36), Saxifragaceae (34), Rosaceae (52), Fabaceae (46), Rhamnaceae (50), Ericaceae (58), Menthaceae (20), Scrophulariaceae (47), and Asteraceae (117). The genera having ten or more species are: Salix (27), Quercus (14), Eriogonum (36), Atriplex (18), Berberis (Mahonia) (10), Ribes (28), Lupinus (13), Ceanothus (40), Malvastrum (12), Aretostaphylos (38), Salvia (14), Penstemon (32), Lonicera (10), Haplopappus (21), Brickellia (13).

On the whole the author has maintained a conservative concept not only of species but of genera and families. His family "Fabaceae" includes Caesalpiniaceae and Mimosaceae and is equivalent to the old "Leguminosae." Rosaceae and Saxifragaceae are also used in the broad sense. His conservatism in generic concept is illustrated by the combining of the American genus *Hosackia* with the Old World *Lotus*, *Mahonia* with *Berberis* and *Ericameria* with *Haplopappus*. One is surprised therefore to find *Xylococcus* separated from *Aretostaphylos*. I personally approve the segregation, but then I would also segregate *Mahonia* and *Berberis*, and *Hosackia* and *Lotus*.

The work is a serious attempt to foster a growing interest in native plant life, and we wish it well. For increased knowledge and wider intelligent interest in the native plants and the part they play in the economy of the state is imperative if we are to develop a sound scientific policy of conservation that will be supported

by the public. Up to date the public's policy toward our national resources too often has been on a par with the recent economic policy of "spending ourselves rich."

LEROY ABRAMS

STANFORD UNIVERSITY

REPORTS

FINANCES OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Is the American Association for the Advancement of Science in a sound financial condition? Its income statement and balance sheet of course answer that question. But they are in language we do not ordinarily use and consequently do not readily understand. Consequently I will make a few explanatory and supplementary remarks on the financial tables which follow.

The property of the association, aside from office equipment and supplies, consists primarily of its permanent funds, which are in the form of cash and securities, and title to *SCIENCE* and *The Scientific Monthly*, which were transferred to the association by Dr. J. McKeen Cattell in December, 1938. It will be seen on examining the balance sheet of the treasurer which follows that on last September 30 the investments of the association in securities and mortgages amounted to about \$253,000. The portfolio of investments of the association has recently been examined by several groups of financial experts and pronounced on the whole satisfactory. However, the council at its meeting in Columbus elected Frederick P. H. Siddons, secretary of the American Security and Trust Company, of Washington, as chairman of the finance committee in order to provide the association expert advice on financial problems.

SCIENCE and *The Scientific Monthly* were sold to the association subject to a contract to pay to Dr. Cattell or his estate for ten years an annuity amounting to the average of half of the annual net profits of these journals for the five years preceding the date of their transfer. With the steadily increasing membership and circulation of the journals, these journals should be a source of substantial income, especially after payment for them shall have been completed. At that time, even if the membership of the association should not increase in the interval, they will exceed in value all other present assets of the association. The only serious hazard is that an inflation in this country will develop and greatly increase the cost of printing the journals.

TREASURER'S REPORT

Under the constitution of the association the treasurer

is the custodian of the permanent funds of the association. The following balance sheet shows the assets and liabilities of the association, aside from the largely current assets and liabilities of the permanent secretary's office, which are contained in a separate report.

ASSETS (FROM TREASURER'S REPORT)

Securities and mortgages	\$253,100.75
Cash available for investment	13,420.83
Cash available for current needs	16,082.67
Total assets	\$282,604.25

LIABILITIES (FROM TREASURER'S REPORT)

Endowment (for research)	\$115,761.45
Endowment (for general purposes)	95,838.38
Endowment (for emeritus life memberships)	5,000.00
Endowment (for emeritus annual memberships)	500.00
Reserve fund	36,941.61
Annual \$1,000 prize fund	3,000.00
Unused grants to affiliated academies	435.00
Special gift	60.82
Permanent secretary's fund	12,480.14
Accumulated income not appropriated	12,586.85
Total Liabilities	\$282,604.25

It will be evident from this balance sheet that the treasury of the association is in a sound condition. The future will of course depend upon the income and expenses. The following table contains the cash receipts and disbursements of the treasurer for the year ended September 30, 1939, aside from cash received for called securities and cash paid out for purchased securities, and a few other small items not of a recurring nature.

CASH RECEIPTS (FROM TREASURER'S REPORT)

Income from investments	\$ 9,466.43
For endowment, fees of new life members	5,000.00
Revertments from appropriations, etc.	101.06
Special gift	60.82
Total	\$14,628.31

CASH DISBURSEMENTS (FROM TREASURER'S REPORT)

Grants in aid of research	\$ 2,128.75
Grants to affiliated academies	2,615.00
Maiben lecture (Milwaukee meeting)	283.12
Life and 50-year member subs. to journals	1,668.00
Miscellaneous disbursements	116.89
Appropriation for emeritus life membership	4,500.00
Total	\$11,311.76

These cash receipts exceeded the cash disbursements by \$3,316.55. The treasurer also provided \$1,000 for the Thousand Dollar Prize from reserves for the purpose.

In addition to the foregoing receipts and disbursements, the treasurer received \$13,025 for bonds that had been called and disbursed \$10,770.83 for securities