other factors. The administrative policies of the Forest Service and Bureau of Land Management are discussed with a backdrop of the recent conflicts between ranchers and agencies. The viewpoints expressed cover many sides of the multiple-use conflict and the latest developments. The reader is left to his own conclusions on the merits of different arguments.

Four chapters give general descriptions of ranches from data in the U. S. Census of Agriculture, of special problems of ranches, and of the management of cattle and sheep ranches of different types. These are followed by chapters on ranch values and income, land values and grazing fees, and credit.

An analysis of movement, supply, and demand of meat and wool is covered in 6 chapters. As with the other parts of the book, the center of attention is turned toward the problems of the range livestock producer.

One chapter deals with the range livestock industry during the second world war but it covers only briefly trends in numbers, demand, fattening operations, prices, income, and wages. The last chapter includes a short conclusion of the major points and an admittedly hazardous look ahead.

The book is an attractive member of the McGraw-Hill Forestry Series. Format, variations in sentence structure, generally short clear sentences, coherent expression of thought, and well spaced headings make readability high. Illustrations number 84 figures and 26 tables. Literature is cited in footnotes and may be somewhat scanty for those wishing to read further on certain subjects. The author has leaned heavily on Senate Document 199, The Western Range, and on Farm Management by J. D. Black, Marion Clawson, C. R. Sagre, and W. W. Wilcox.

Mr. Clawson is quite frank in recognizing the limited scope and content of the book. Many phases of Range Economics are left out or incompletely covered, such as: techniques of livestock production, marketing procedures, processing of livestock, fattening, historical summaries, and political and governmental regulations. Further, many supporting facts and descriptions are omitted. Some may criticize the book for this reason but is has allowed a clear presentation of principles without an over-dose of illustrations and minor details which so often cloud major issues. The college teacher can add the details of local or regional situations as he sees fit. The technician has the major superstructure on which to add other building materials. The livestock operator can easily compare the principles of over-all range economics with the details of his ranch operation.

This book deserves the reading of all interested in range livestock production and should be in every library for ready reference. It is by no means the complete word in range economics but it does give sound advice on the questions beginning this review and many similar ones. Other books that stress subjects omitted and add details to the materials covered need to be written. The goal of Range Management cannot be reached until the full force of economics is realized and appreciated—until recommended practices are economically sound as well as technically sound.—Harold F. Heady, Dept. of Range & Forestry, A. & M. College of Texas, College Station, Texas.

MODERN BREEDS OF LIVESTOCK

An up-to-date consolidation of livestock breed histories has been prepared by the author. A subject of such tremen-
dous scope necessarily entails a voluminous compilation of information. An historical perspective is presented for each of the fifty-two recognized present-day breeds providing a background from which to view the present general problem of animal breeding. The historical review given in considerable detail is perhaps somewhat overdone even for a college text, and detracts to some extent from the emphasis placed on breed modernization. A facile expression and the straightforward, impartial breed evaluations compensate for this slight inconsistency. Each breed is treated frankly and fairly on its own merits and faults. Characteristics that need improvement are freely discussed. Distinguishing markings of the several breeds are listed. In this regard the significance of maintaining definite patterns of color markings is interestingly related. A thorough detailed description of the desired presentday type is accompanied by photographs of outstanding animals. Tables effectively supplement the descriptive subject matter by listing prominent show winners, blood lines and production records. The more prominent lines of descent are clearly displayed in chart form providing a ready understanding of important genealogical sequences. Of major interest to many readers will be the distribution of the different breeds throughout the country—the specific areas to which certain breeds are particularly well adapted. The reader is brought to realize that animals must not only conform to a desired conformation and quality, but be adapted to their environment. The introduction is devoted to an explanation of the commonly used livestock terms pertaining to breeds and breeding. Particulars of livestock registration and base dates for reckoning show classifications are thoughtfully listed for handy reference.

The comprehensive subject matter of this book makes it a useful source of information for all who may be engaged in or are closely identified with the livestock industry. Breeds are an expression of the livestock population. They serve to arouse competitive interest and enthusiasm among livestock breeders and attract public attention to the animal industry. They are the media for effecting changes in characteristics necessary to meet practical economic needs. The range manager and the rancher alike will find this frank discussion of the domestic livestock breeds a source of greater insight into the problems of animal breeding and management.—E. B. Stanley, Dept. Animal Husbandry, University of Arizona, Tucson, Arizona.

Western Land and Water Use

By Mont H. Saunderson, 217 pp.
University of Oklahoma Press, Norman, Oklahoma. 1950. $3.75.

Populations are not static, either in size or movement: trends are rapidly upward—and westward.

And the significant note, in this significant new volume by Mont H. Saunderson, presently chief Economist of the U. S. Forest Service’s Division of Range Management, is that westward movement.

"... Migration, apparently inevitable and inexorable, continues westward. ... It will mean local, regional, and national economic adjustments, which we should try to foresee, and with which both our individual planning and our national policy making must reckon.

"With the growth of population in the western states and expansion of irrigation and of industrial uses of water, full use of western water resources is now foreseen. What are these resources, and