

(1) the faculty is chosen solely on the grounds of professional competence, teaching ability and personal integrity; and

(2) the student body is admitted solely on the criteria of ability to assimilate and profit by the instruction given (again assuming personal integrity);

and Government supervision adequate to enforce compliance with such requirements should, in the public interest, be instituted in respect to those institutions receiving the subsidy.

Dr. Cowdry quotes from Mr. Hilpert, a professor of constitutional law, to establish the legality of such subsidies. Professor Hilpert holds that granting such "would not exceed the delegated powers of Congress" and "would not violate the due process clause of the Constitution." I am not qualified to pass upon these two dicta, but I should like to direct attention to the third conclusion of Professor Hilpert, that the proposed scheme does not "constitute an establishment of religion in violation of the First Amendment, *even if benefits are extended to so-called sectarian institutions*"; to support which, he adds: "Realistically, sectarian colleges and universities (I exclude avowed theological seminaries) *do not exist to perpetuate a religion but to provide secular education . . .*" [italics mine].

While this may be true in a measure for certain sectarian colleges of the so-called "more liberal" sects, it is scarcely the case with many others. Though the latter sectarian colleges may teach some non-controversial subjects substantially as they are taught in secular institutions, their teachings in other subjects are colored by their particular sectarian doctrines in a manner which can scarcely provide what may be termed a "secular education." And as to the suggestion that such sectarian institutions "do not exist to perpetuate a religion"—the exact opposite would appear to be the situation. This is evidenced by the active support they receive from their respective sects,

the assiduity with which new institutions of this class are sought to be founded, and by the reports in the daily press of the many sermons and sectarian addresses which inveigh against so-called "Godless" education, *i.e.*, the secular education, the providing of which Professor Hilpert naively suggests is the object of the generality of sectarian colleges.

According to the current "World Almanac," the followers of the 256 different religious bodies in the United States, in the 1936 census, numbered some 56,000,000. Thus more than one half our population is without religious affiliation. Regardless of any technical constitutional interpretation, what equity could be claimed for a scheme which would tax the greater part of our population without religious affiliation to provide support for religious institutions of the lesser part? And in a democratic society, the argument is just as potent were the proportions reversed. To the non-legal mind, at least, the granting of such a subsidy to sectarian institutions seems to contravene the spirit, if not indeed the letter, of the constitutional provision against the establishment of religion.

It would seem, therefore, that there should be added to the two minimum requirements as to which an institution of higher learning (or in fact any educational institution of whatever grade) must qualify before receiving any public funds, another which would provide that in order to receive such help:

(3) the institution shall not be controlled by or affiliated with any religious sect or organization, shall not require any religious qualification of any of its governing personnel or boards, or of its faculty, or of its student body, and shall not require attendance at any course in religious instruction, or at any religious services.

The subsidy which Dr. Cowdry advocates, if protected by the three fundamental restrictions suggested, might well be deemed to be in the public interest.

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## SCIENTIFIC BOOKS

### AMERICAN FORESTS

*Behold Our Green Mansions. A Book about American Forests.* By RICHARD H. D. BOERKER. xiv+313 pp. 96 full-page plates from photos, arranged through the text in groups of sixteen, plus numerous maps, graphs and tables of data. The University of North Carolina Press. 1945. \$4.00.

THIS book, bound in blue cloth with green title patch, is essentially a volume on the scientific and practical aspects of forest conservation in the United States. It has been written by a man who has spent

his entire professional career of thirty-five years very close to the subject. At the outset he outlines his purpose to depart from the traditional, passive, "woman's club" ideas of conservation and to accept as his guiding light the more dynamic and scientific principles that underlie the restoration and maintenance of American forests for multiple use and with human welfare in a very broad sense as the ultimate object.

The book contains about all that one could wish in a one-volume treatment of so complex a subject. It impresses us as one of the very best publications

on this topic that has appeared during the past twenty-five years.

After a brief treatment of the historical aspects of our treatment of American forests, including an outline of natural forest regions and the regions of present commercial saw timber, Dr. Boerker plunges into a consideration of the manifold relationships of forest products to the nation in time of peace and war. The importance of forests in our recreational program is given appropriate treatment, and we learn that about 45,000,000 acres of forest land will be needed by all types of recreation in the future. The relation of forests to wild life, water supply, erosion, soil conservation and flood control are treated in several special chapters and are referred to in many other places throughout the text. It is good to note that the results of rather recent researches are reflected in the discussion of these and many other topics. Reference is made to the still lingering differences that exist among the experts regarding many of the natural relationships of forests. In this connection the author stresses the wisdom of the old Chinese belief that "the mightiest rivers are cradled in the needles of the pine trees."

The discussion of lumber and its by-products includes reference to some of the newer synthetic and fabricated materials that have become of great commercial value. The importance of the forest as a livestock range is indicated by the statement that of the 600,000,000 acres that are classified as forest land in the United States over one half is used for grazing purposes. Forty per cent. of all the mature range cattle in the western states graze on forest lands for at least a part of the year. Many of our most fundamental economic and social problems as well as numerous controversial scientific attitudes are involved in the relationships between forests and livestock. The conflict between federal and private management of such resources is still a live topic in the West.

Some of the most impressive sections of this excellent book are those that present an introduction to the destroying agents of fire, fungi and insects to which forests are constantly exposed. The terribly destructive influence of these factors, especially of fire, have now become fairly familiar to many reading Americans. That insect enemies of the forest take a toll of \$100,000,000 a year can scarcely be sensed by the average American, however, or that a single species of parasitic fungus could practically wipe out one of our most important hardwood trees in less than fifty years. The findings of the forest entomologists and forest pathologists admirably illustrate the scientific complications of modern forestry, and indeed of conservation of natural resources in general.

The author properly devotes considerable space in

special chapters to the consideration of the leadership of the federal government in American forestry. Numerous other references to this well-known and significant feature recalls a former book, "Our American Forests," that Dr. Boerker published in 1918. And the controversies that still hound American forestry over the question as to public versus private management of our forest resources are also touched. The author is quite objective and impartial in the presentation of most of his material, but on this question, after a passing reference to the differences of opinion, he clearly indicates that his own attitude is to favor increasing governmental control and management of such important and nationwide matters.

The role of the various states in forest restoration and the forestry problems that are peculiar to the various sections of the nation are topics of special chapters, as are the special economic and social factors involved in private forestry. This extremely attractive book is concluded with a good index.

Dr. Boerker's new book is thoroughly documented and reliable, and the University of North Carolina Press has done an excellent job of manufacturing the volume. It can be warmly and confidently recommended to every American, old and young, who is seriously interested in the future welfare of his nation. It will serve as an admirable guide for any group or class that wishes to undertake a special study of forest conservation.

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### EBULLIOMETRIC MEASUREMENTS

*Ebulliometric Measurements.* By W. SWIETOSLAWSKI, professor in absentia of physical chemistry of the Institute of Technology, Warsaw; senior fellow, Mellon Institute of Industrial Research. xi + 228 pp., 64 figs. Reinhold Publishing Corporation, New York, N. Y., 1945. \$4.00.

IN 1936 an English edition of "Ebulliometry" was published in Cracow, and in 1937 a photolithotyped edition with supplements appeared in the United States. The latter has been rewritten and new developments have been included to form this new edition. The book is a unique source of authoritative and concise information on modern ebulliometric methods, most of which have been developed by the author or under his direction. The description of experimental technique and the illustrations of apparatus are of such clarity and detail that it can serve as a laboratory manual as well as a text of principles and a handbook of valuable information, data and references. The advantages, in simplicity, convenience and precision, of the method of comparative measurements are explained and emphasized throughout the