
REVIEWS

A Treatise on Applied Hydraulics. By Herbert Addison. (Messrs. Chapman & Hall, Ltd., London), 1944. Pp. viii + 614. Price 32/-.

In this third edition of Prof. Addison's treatise on Applied Hydraulics, he has expanded and revised the excellent second edition. The Preface to the first edition is worth quoting, as it explains the author's purpose:

"The purpose of this book is to present a compact summary of the fundamental principles of hydraulics and of the manner in which they are applied by the engineer. Readers who have particularly been kept in mind are those whose work is not directly connected with hydraulics but who require to be kept in touch with the main outlines of hydraulic practice. . . . For their benefit the book is divided into two parts, so that when used as a work of reference only the second part dealing with practical applications need as a rule be consulted."

The enormous amount of information contained in less than six hundred pages has only been rendered possible by say, careful condensation and exclusion of what is unessential: yet the treatment is always adequate for the purpose in view and the enlarged Bibliography is helpful. Here, however, all references to recent advances in India is omitted. Purely a serious oversight. There is no reference to the Gibb module, the crump adjustable proportional module (semi-module) nor to the various excellent papers written in India on this subject: while the only reference to Sacey is in the Bibliography (item 72) under the heading "The Sacey Theory of Non-Stability".

It is to be hoped that Prof. Addison will look up the Central Board of Irrigation Publications before his next edition is released. To us in India, the omission is less important: but references to recent Indian advances would be of great help to workers in other countries, including Egypt. The explanatory notes in small type are most helpful, especially those in the chapter on "Flow through Closed Conduits," which give the clearest exposition of frictional loss in closed conduits which I have yet seen. This should be read and re-read by all irrigation engineers.

The references to earlier and later paragraphs are admirable and make it easy to trace the full argument from basic theory to its final application without having to read anything which is not general to the particular problem.

The book is well balanced and clearly produced and well up to the excellent standard we have come to expect from the House of Chapman & Hall.

This is a valuable book of reference.

C. C. INGLIS.

Exercises in Human Physiology. By Sir Thomas Lewis. (Messrs. Macmillan & Co., Ltd., London), 1945. Pp. xiv + 103. Price 3/6.

When a medical student enters the clinical studies from the preclinical, he experiences a discontinuity in the transitional period. He feels that he has to shed some of the past, and is apt to ponder over the usefulness of his preclinical studies then and after. Sir Thomas Lewis' little book smoothens out his difficulties and provides an admirable preparatory to clinical work. This little book will show him that the application of his previous knowledge of Physiology to his immediate clinical problems makes him more fit to deal with the latter; he could apply the previous laboratory methods which he has learned, to human material which he encounters in the hospital with success. The book gives a concise and lucid account of the practical problems of Human Physiology and its size would enable it to be included in the regular curriculum and would not add any heavy burden to the students' lot; on the contrary, it will arouse interest, as he himself would take the place of the laboratory animals. Instead of passing from studies on animals to those on abnormal humans directly, this book provides an intermediate stage of studies on the normal human beings, thus bridging the gulf between the preclinic and clinical eras in medical studies.

The Gondwana and the Gonds. By Inderjit Singh. (The Universal Publishers, Ltd., The Mall, Lucknow), 1944. Pp. 201. Price Rs. 12.

Primitive economics is a somewhat neglected subject everywhere, particularly so in India, where there is not yet a sufficient number of anthropologists to deal with questions connected with the vast tribal population. Dr. Inderjit Singh, in the volume before us, has tried to give us a picture of the economic life of the Gonds. Within the short space at his disposal, it has not been possible for him to go into illustrative details, but he has broken new ground in marshalling the various forces, natural, religious, historical and cultural, in the make up of the economic Gond. Having served a long apprenticeship in anthropological theory and field work under his able teachers in the Lucknow University, Dr. Singh, with the knowledge he possesses of tribal dialects, creates an impression of high objectivity in whatever he has written. This is as it ought to be. It is not possible in this short review to summarise his theme, but readers will find the chapters on "Tribal Settlement and Social Stratification", on the *Gotul* or youth-house, on "Economic Leadership", and the final chapter on "Cultural Contacts and Acculturation" particularly interesting.

Tribal India seems to present almost the same pattern of problems everywhere—ruthless exploitation, total neglect, or half-hearted measures of relief, by those charged with the duty of safeguarding their interests. Dr. Singh argues passionately for a more sympathetic and scientific treatment of tribal problems in Gondwana, for a craft-based system of education and for the conservation of the several trails of value in Gond culture.

A. AIYAPPAN.

Vijnana mattu Sahitya. By K. S. Savanur. (The Students' Own Book Depot, Dharwar), 1944. Pp. vi + 71. Price 12 annas.

This is a reissue in book form of ten articles in Kannada originally published in the *Samyukta Karnataka Daily*. The main theme is the place of Science in the modern world. It has become fashionable in many quarters to blame science for all the ills of the world and the author sets out to show how the fault is not of science but of those who misuse it, and he shows also how Art and Literature can be equally misused. The opinions of men like Generalissimo Chiang Kai-Shek, Sir Richard Gregory and Bertrand Russell have been quoted and commented upon. The author comes to the conclusion that the remedy for the ills caused by the misuse of science is to be found only in a still more extensive application of the method of science to all the fields of human activity. The connection between the various articles is not logically quite complete but the general theme is kept in view. The language is simple and vigorous, and, but for a few peculiarities not familiar to us in Mysore, easily intelligible. It would be such a good thing if the powers that be can be made to realise the truths set out in the book. As a first step, however, we hope that our voting public and its representatives will spend some time in perusing the book and convincing themselves of the truth of the view therein set forth.

T. S. S.

A Life of Travels. By C. S. Rafinesque. *Chronica Botanica*, Vol. 8, No. 2. (The Chronica Botanica Co., Waltham, Mass., U.S.A.; Macmillan and Co., Ltd., Calcutta), 1944. \$2.50.

To fully appreciate the worth of Rafinesque, a naturalist of the 19th century, it would be necessary to consult his major works besides his *A Life of Travels* under review here. A perusal of his accounts of his travels does, however, help one in getting a glimpse into the life and doings of a versatile and untiring worker. Although it may appear to a casual reader that his interest lay in many fields of knowledge, yet it is clearly evident that the study and classification of plants, fishes and shells was the most important among them and

received his best attention. His life was devoted to a never-ending quest in search of plants, shells, fishes, minerals, etc., and in the description and classification of the material collected during his excursions. Wherever he went, whatever other occupation for profession he undertook for the sake of earning a living, his insatiable desire to wander over the countryside in search of plants continued nearly to the end of his life.

Rafinesque travelled widely over North America and Southern Europe and wrote at length on the flora of the countries visited by him. Yet he never received his just due from his contemporaries. He was considered by them as eccentric, unreliable and unscientific in his judgment. So bitter was the feeling against him that he could never get any recognition for his labours by the orthodox men of science of his day barring perhaps a few exceptions. But Rafinesque's was a bold and indomitable spirit that could not be quenched with disappointments, defeats or disaster. He continued to work to the end in his own way and had to publish many of his works at his own cost.

Rafinesque first visited America in 1802 and returned to Europe in 1805. He settled down in Sicily where he stopped for ten years and worked a good deal on the local flora. Later forced by circumstances he returned to the United States for the second time when a great disaster overtook him. His work of twenty years of the best part of his life, comprising thousands of collections of plant species, shells and fishes; his manuscripts of many years of painstaking work were all lost in a shipwreck on the coast of America. But this did not deter him from beginning all over again and working for another two decades to contribute to the knowledge of the flora, the ichthyology and conchology of eastern North America.

Rafinesque himself believed that some day his labours would receive their just due. In vindication of his contribution to the natural history of eastern North America during the 19th century comes the following appreciation of this versatile man whose intelligence bordered on that of the genius. Prof. Elmer D. Merrill, an eminent botanist of international renown who writes the foreword to the above republication of Rafinesque's travels, says, "In spite of Rafinesque's idiosyncrasies, in spite of his careless work, in spite of his constant and often caustic criticism of his associates, much that he accomplished was worthwhile." In republishing *A Life of Travels*, the *Chronica Botanica*, a journal devoted to the science of biology, has but given the meade of praise and recognition that was Rafinesque's—a descriptive biologist's due—in the 19th century.

L. S. S. KUMAR.