

they made many false starts and experiments that ended in failure, but finally they did succeed in making fairly good "iron silkworms," and these are today pushing the natural silkworms hard for their share of the glossy-fabric business. For rayon threads and all their silky synthetic kin are made by first digesting vegetable material (cellulose) with acid into a gluey mass more or less like the stuff secreted by a spider's or a caterpillar's silk gland, and then squirting it out through microscopic holes and letting it harden into fine fibers which are then twisted into thread or yarn.

The old classic legend has it that the goddess Athene, being challenged to a contest in weaving by a mere mortal woman named Arachne, turned her presumptuous rival into a spider. Athene was credited by the Greeks with having taught the daughters of men how to spin and weave. But it would seem that after long ages Arachne has had her revenge: she has taught mankind a secret that not even Athene knew.

*Science News Letter, February 10, 1934*

## STANDARDS

## Bureau of Standards Urges Use of Informing Labels

IN ACCEPTING commercial standards projects the U. S. Bureau of Standards will give priority to those in which producers are willing to label their products guaranteeing compliance with standards. This move, just announced by Director Lyman J. Briggs, is taken to give maximum service to the consumer in over-the-counter trade.

In a letter addressed to those interested in simplified practice and commercial standards, the Director announced that it has been decided to continue this type of work at the Bureau of Standards, in cooperation with the American Standards Association and other organizations and groups.

Some months ago, it was announced by the Secretary of Commerce that certain of these activities would be transferred to the American Standards Association, but this plan is now modified.

"The work has an added importance at this time because of the need for reference to standards of dimensions and quality in the NRA codes for fair competition," Dr. Briggs said.

*Science News Letter, February 10, 1934*

There are 225 languages spoken in India.

## •First Glances at New Books

## Zoology

**HANDBOOK OF FROGS AND TOADS**—Anna Allen Wright and Albert Hazen Wright—*Comstock Pub. Co.*, xi+231 p., \$2.50. This is a book for which thousands of biology teachers in high schools and colleges all over the country have been waiting. It gets together into one place all present available taxonomic and biological information about the Salientia, keys them out, describes them fully, and backs up description with beautifully definite photographic illustrations. The specified range is the whole of the United States and Canada, but excursions are made into the tropics with descriptions of such interesting species as the giant *Bufo marinus*. The book is announced as volume 1 of a new series: Handbooks of American Natural History. If succeeding volumes hold up to the standard set here, they will be valuable indeed.

*Science News Letter, February 10, 1934*

## Nature Study

**NATURE CHATS: A YEAR OUT-OF-DOORS**—John Harvey Furbay—*Science Press*, xv+255 p., \$1.75. This book is just what its title implies: chatty, discursive essays on all manner of out-of-door things, arranged season by season and week by week. It is well adapted for school use with more mature students, or it can be used to advantage and with pleasure by the solitary reader. Useful supplements tell how to collect and preserve biological specimens, suggest study projects, etc.

*Science News Letter, February 10, 1934*

## Medicine

**THE PREGNANT WOMAN**—Porter Brown—*Eugenics Pub. Co.*, 174 p., \$2. The author of this book, a physician, discusses the subject clearly, simply and thoroughly. Physiology and anatomy, diagnosis and general care during pregnancy and childbirth, sex education and the foolishness of old superstitions regarding pregnancy are all included.

*Science News Letter, February 10, 1934*

## Biochemistry

**THE LYOPHILIC COLLOIDS (THEIR THEORY AND PRACTICE)**—Martin H. Fischer and Marian O. Hooker—*Charles C. Thomas*, 246 p., \$4.50. This is a technical discussion of the authors' theory, their fifteen-year research on the subject, and some applications to problems of applied chemistry and of biology and medicine.

*Science News Letter, February 10, 1934*

## Geography

**POLAND PAST AND PRESENT**—Stefan Karski—*Putnam*, 160 p., \$2. An informative book, telling in plain fashion facts about a country perhaps less widely known than most European lands. Among the topics covered are the history of Poland, its government, finances, literature, arts and sciences, agrarian reform, social legislation, religion, and education.

*Science News Letter, February 10, 1934*

## Archaeology—Ethnology

**THE HISTORIC TRAIL OF THE AMERICAN INDIANS**—Thomas P. Christensen—*Laurance Press Co., Cedar Rapids, Ia.*, 193 p., cloth \$2, paper 65c. A very successful effort to pack into small space essential facts about the Indian. The author stresses the historic angle and carries his survey forward from conditions as they were in pre-Columbian times to the conflicts with white men, and finally to the Indian of today. Both North and South American Indians are included, and a wide range of information is covered.

*Science News Letter, February 10, 1934*

## Physics—Chemistry

**MOLECULAR HYDROGEN AND ITS SPECTRUM**—Owen Willans Richardson—*Yale*, 342 p., \$3. The hydrogen molecule  $H_2$  is the simplest of all molecules and it was one of the first structures found to be inexplicable on the old quantum mechanics. The author, whose name occupies a firm position in the development of modern physics, and who is Yarrow Research Professor of the Royal Society and upon the faculty of King's College, London, treats the spectrum of the hydrogen molecule exhaustively in this compilation of the Silliman lectures delivered at Yale. Incidentally, the hydrogen molecule should not be confused with double weight hydrogen (heavy hydrogen or deuterium).

*Science News Letter, February 10, 1934*

## Psychology

**CHILDREN'S FEARS, DREAMS, WISHES, DAYDREAMS, LIKES, DISLIKES, PLEASANT AND UNPLEASANT MEMORIES**—Arthur T. Jersild, Frances V. Markey, and Catherine L. Jersild—*Teachers College, Columbia Univ.*, 172 p., \$1.75. A study of 400 children aged 5 to 12 conducted by means of intimate personal conversation with each child alone. A rare view of the child mind.

*Science News Letter, February 10, 1934*

# ● First Glances at New Books

Additional Reviews  
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## Medicine

**THE SPAN OF LIFE AS INFLUENCED BY THE HEART, THE KIDNEYS AND THE BLOOD VESSELS**—Franklin R. Nuzum—*Charles C. Thomas*, 108 p., \$2. Since further increase in the span of life must come largely through conquest of so-called degenerative diseases—diseases of heart, kidneys and blood vessels—the board of directors of the Santa Barbara Cottage Hospital sponsored a series of informal popular talks on present knowledge of these organs and the diseases affecting them as part of a program of community health education. The talks form the basis of this volume which should prove helpful to a wide group of readers.

*Science News Letter, February 10, 1934*

## Physics

**PHYSICAL OPTICS**—Robert W. Wood—*Macmillan*, 846 p., \$7.50. This third edition of a classic of modern physics, the last edition of which appeared in 1911, will be enthusiastically received. Dr. Wood explains that the theory of optical phenomena has developed since the last revision to such an extent that nearly one-half of the old edition had become obsolete. There are many new illustrations and among the completely new chapters are those on the origin of spectra and the Raman effect.

*Science News Letter, February 10, 1934*

## Vocations

**MAKE YOUR OWN JOB, OPPORTUNITIES IN UNUSUAL VOCATIONS**—Violet Ryder and H. B. Doust—*Wilson*, 217 p., \$2. Suggestions for the many who have no employment. In case you do not feel qualified to make baby mittens, you may be interested in photographing children, conducting a neighborhood nursery, or raising tropical fish. Written in narrative form.

*Science News Letter, February 10, 1934*

## Education

**A BACKGROUND STUDY OF NEGRO COLLEGE STUDENTS**—Ambrose Caliver—*Govt. Print. Off.*, 132 p., 10c. A study conducted by the U. S. Office of Education. It was found that, "The typical Negro college freshman is 20 years of age, has a mean psychological score of 76 (American Council on Education Examinations) and comes from a family of 5 children of which 1 has already graduated from college. His father and mother have respectively, 8 and 9 years

of schooling. During his high-school career he read 21 books voluntarily; engaged in 3 hobbies or interests; belonged to 3 organizations and held 2 offices. He comes from a home having a monthly income of \$95. The home he comes from contains 5 or 6 rooms and is occupied by 4 or 5 persons. His parents have 96 books in their home and take two magazines."

*Science News Letter, February 10, 1934*

## Medicine

**BEHIND THE SCREEN**—Maurice Chickel—*American Medical Pub. Co.*, 275 p., \$2. Written in the form of a "diary of a busy practitioner," this book purports to show human nature as seen behind the screens of hospital wards and consulting room doors. The book shows a striking lack of sympathy for and tolerance of human vagaries, qualities which are characteristic of most physicians and were so markedly exhibited by Sir William Osler, Weir Mitchell and Oliver Wendell Holmes, the three physician-authors mentioned in the preface by Laurance D. Redway.

*Science News Letter, February 10, 1934*

## War-Medicine

**MEMORIES OF KUPEIKOW**—Joseph Yu—*Liang You Pub. Co., Shanghai*, 92 p., \$1 unbound, \$2 bound. This volume of pictures with titles in Chinese and English is a vivid reminder that there have been major wars since what has been called "The Last War." Dr. Yu was captain of a unit of the Chinese Red Cross in the Sino-Japanese conflict early in 1933. He has brought together photographs taken during his service.

*Science News Letter, February 10, 1934*

## Ethnology

**THE EGYPTIANS**—S. R. K. Glanville—*Macmillan*, \$1. This small book has the pleasant task of introducing the ancient Egyptians to young readers in their teens. From his work in the Department of Egyptian Antiquities in the British Museum, Mr. Glanville is very much at home with the Egyptians, and he describes the life of kings and peasants and government clerks in lively fashion.

*Science News Letter, February 10, 1934*

## Zoology

**WHITE-TAILED DEER OF THE ADIRONDACKS**—M. T. Townsend, M. W. Smith and Chas. J. Spiker—*Roosevelt Wild Life Forest Experiment Station*, 235 p., 5 folded maps, \$1. Beauty and interest for the present-day nature lover and the zoologist, game for the modern hunter, the white-tailed deer lays claim to our consideration also because of his highly important past; for he was food, clothing and tools to the red man and the first comers of the white. What he is doing now, under changed conditions, is still of interest and importance especially in view of the new program for the retirement and reforestation of sub-marginal lands. For all these reasons, and others besides, the present study will be valuable.

*Science News Letter, February 10, 1934*

## Entomology

**AN ECONOMIC ENTOMOLOGY OF THE WEST INDIES**—George N. Wolcott—*Entomol. Soc. of Puerto Rico*, xviii+688 p., \$3. Among the first tropical lands to be subjected to agricultural development by modern Europeans, the islands of the West Indies are still among the most important. The myriads of insects that levy unprofitable toll on their produce are therefore of exceptional importance; so that in producing this first general text and reference book for island planters and educators Dr. Wolcott has performed a major service. The approach is by way of the host plant. Quite properly, first attention is given to insects attacking sugar cane, but due space is also devoted to the pests of fruits, especially pineapple and citrus, and of tobacco and other crops.

*Science News Letter, February 10, 1934*

## Nutrition

**DIET AND PERSONALITY**—L. Jean Bogert—*Macmillan*, 223 p., \$2. "Fitting food to type and environment" is the secondary title given by the author to this book which has an introduction by Prof. Lafayette B. Mendel. Practical advice for the fat, the thin, the nervous, the dyspeptic and the food faddists is given in a chatty, easy-to-read style.

*Science News Letter, February 10, 1934*

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