

## GEOGRAPHY

**Everest**

● "THUS almost, before indeed I expected it, we swooped over the summit and a savage period of toil began. The pilot swung the machine skilfully again towards the westward into the huge wind force sweeping downwards over the crest; so great was its strength that, as the machine battled with it and struggled to climb upwards against the downfall, we seemed scarcely to make headway in spite of our 120-mile an hour air speed. I crammed plate-holder after plate-holder into the camera, releasing the shutter as fast as I could, to line it on one wonderful scene after another. We were now for a few moments in the very plume itself, and as we swung round fragments of ice rattled violently into the cockpit."—P. F. M. Fellowes, Lord Clydesdale, L. V. Stewart Blacker, P. T. Etherton in *FIRST OVER EVEREST!* (*McBride*).

*Science News Letter, April 21, 1934*

## CHEMISTRY

**Complexity in Simplicity**

● "THE DIATOMIC hydrogen molecule  $H_2$  is an object of the greatest scientific interest. It is made up of two protons and two electrons. It is thus one of the simplest structures which nature has provided. The only simpler ones are the electron, the proton, the hydrogen atom (1 proton + 1 electron) and the hydrogen molecular ion  $H_2^+$  (2 protons + 1 electron). In spite of this simplicity of structure it has an extraordinarily complicated spectrum in which some thousands of lines have been observed and their wave numbers measured. This many lined spectrum of hydrogen has been one of the basic puzzles of spectroscopy ever since the early days of spectroscopic history."—Owen Willans Richardson in *MOLECULAR HYDROGEN AND ITS SPECTRUM* (*Yale Univ. Press*).

*Science News Letter, April 21, 1934*

## PSYCHOLOGY

**The Best Vocation**

● "ON THE WHOLE, the vocational histories of these boys and girls are not in accord with the opinions of those enthusiasts for vocational guidance who assume that an examination of a boy or girl of fourteen and a study of his school record will enable a counselor to estimate his fitness to succeed in this, that, and the other sort of work.

"Vocational counselors of a certain type would use a superior record for

conduct in school as evidence that the boy would be cooperative and dependable at work, a superior attendance record as evidence that he would be faithful and regular at work, rapid progress in school as evidence that he would be ambitious and eager to learn in business, and the like. They would accept the school records, the test scores, and their personal impressions of a boy or girl of fourteen or fifteen at par as indexes of his future behavior as a worker."—Edward L. Thorndike and others in *PREDICTION OF VOCATIONAL SUCCESS* (*Commonwealth Fund*).

*Science News Letter, April 21, 1934*

## GENERAL SCIENCE

**Research**

● "WHEN the history of America is written centuries hence, it will be noted that in the first quarter of the twentieth century business began to subsidize scientific research. That resounding fact may then be considered more important than any of the political or military events of our era. The laboratory, where trained men work quietly amid controlled conditions, is a seed-bed of social and political change as well as of scientific experiment."—Arthur Pound in *THE TURNING WHEEL* (*Doubleday, Doran*).

*Science News Letter, April 21, 1934*

## ENDOCRINOLOGY

**Glands**

● "BY A PROCESS of gradual selection the term 'endocrinology' (Gk. *endon*, within; *krinein*, to separate) has gradually become accepted as indicating the study of 'internal secretion.' It denotes the science, or the branch of science, concerned with the glands which separate within themselves *specific* compounds and secrete them into veins, or perhaps in one or two instances into their lymph vessels. These compounds effect, by reason of their specific chemical constitution, specific actions elsewhere within the organism. The glands concerned are *endocrine glands*. The specific compounds they form, frequently termed 'internal secretions,' or *endocrine secretions*, perhaps should more accurately be spoken of as *endocrine principles* or, even better, as *endocrine compounds*. The last term stresses the fact that we are dealing with specific chemical substances, and not nebulous uncertainties which never have been and perhaps never will be isolated."—A. T. Cameron in *RECENT ADVANCES IN ENDOCRINOLOGY* (*Blakiston's*).

*Science News Letter, April 21, 1934*



## PHYSIOLOGY

**Relaxation**

● "STRANGE as it may seem, until a decade or more ago, the term 'relaxation' scarcely appeared as a rule in technical or in popular works on nervous disorders. And to the layman it generally meant something like 'recreation.' But during recent years popular interest in the significance of relaxation as muscular limpness has seemed to expand, until now automobile dealers vie with bed manufacturers and beauty parlor managers in acclaiming its importance, while magazine articles tell you how to relax. If this is all that can be accomplished by our teachings on relaxation, we had better stop now. For the common practice today when a person is nervously or mentally upset or fatigued or exhausted is to have him change his occupation or rest in bed or take medicines or go off on a trip. It still is rare for either doctor or layman to observe tensions systematically or to think of cultivating relaxation. This reveals the need to consider evidence that relaxation in certain respects is the direct negative of nervous excitement; in other words, that *to be excited and to be fully relaxed are physiological opposites*."—Edmund Jacobson in *YOU MUST RELAX* (*Whittlesey House*).

*Science News Letter, April 21, 1934*

## ARCHAEOLOGY

**Dirt**

● "WHEN lecturing in America, I am often asked, 'How did these cities become filled up in the fashion of the tells [mounds]?' It came about from the peculiar fact that the Canaanite and Israelite cities had no street-cleaning department. Not only was the rubbish of the streets allowed to accumulate, but the rubbish of the houses also was swept into the streets and left there. If the accumulation rose above the threshold,—well, they put in a new floor and raised the roof, if necessary. But *they did not clear the streets*. This reasonable explanation has now absolute physical confirmation in our work this year."—Melvin Grove Kyle in *EXCAVATING KIRJATH-SEPHER'S TEN CITIES* (*Wm. B. Eerdmans*).

*Science News Letter, April 21, 1934*

# HORS SAY:

## BOTANY

## India Rubber

● "UNLIKE the wealth that is locked in the soil, India rubber is movable. India rubber trees can be systematically grown and exploited in large plantations, though only in damp, warm, tropical regions. The march of the India rubber trees round the tropical zone, which has taken place within a few decades, is perhaps the most interesting example of the rapid transformation of whole regions by new industry, because of the change of locality of the areas planted and the shifting of great masses of money wealth."—Leo Hausleiter in *THE MACHINE UNCHAINED* (*Appleton-Century*).

*Science News Letter, April 21, 1934*

## ETHNOLOGY

## Heroes

● "THE ANCIENT Chinese who lived some four thousand years ago seem to have been as materialistic as the twentieth century Americans. Look at the gallery of their heroes. Who were they? Were they founders of religion? Were they conquerors, or scholars? No, they were builders and inventors—the inventor of fire, the discoverer of herbs, the inventor of agricultural implements, and so on. The heroes of modern America are of the same stuff as were the heroes of ancient China. But look what happened. The Chinese went crazy about pure learning and condemned all things practical and brought forth the present state of misery and poverty. I hope America will never repeat the tragic history of the Middle Kingdom."—No-Yonk Park (Pao) in *AN ORIENTAL VIEW OF AMERICAN CIVILIZATION* (*Hale, Cushman & Flint*)

*Science News Letter, April 21, 1934*

## MEDICAL ECONOMICS

## Medical Care

● "IF WE LEARN anything from history, we must be resolved that the economic problems which confront American medicine should be solved by the joint action of lay and professional groups. Yet we must recognize that if such cooperation does not become a reality, solutions may be imposed upon

both the public and the profession by ambitious politicians or by designing bureaucrats. And these solutions may not be the best which can be designed in the public interest.

Many persons, lay and professional, are convinced of the need and the opportunity for public service in a sound reordering of the functional relations of medicine. No good purpose is served by denying the existence of the problem or by acrimony between lay and professional groups which have fundamentally common interests. Neither denials nor hard names will create a current or stem a tide. The times call for action and the problems for wise and judicious solutions."—I. S. Falk in *MILBANK MEMORIAL FUND QUARTERLY*.

*Science News Letter, April 21, 1934*

## PHYSICS

## Approaching Nothing

● "THE NEAREST we can get to nothing on this planet is the modern high vacuum and yet a cubic inch of the best vacuum is densely populated with more molecules of gas than there are people on the earth, with 40,000,000,000, to be exact. And at that, only one ten-billionth of the original gas is left, thanks to Langmuir's mercury vapor pump.

"If from a vessel holding a quart there were removed one million molecules a second, it would take 750,000,000 years to remove practically all of its air, but the Langmuir pump accomplishes this in just two seconds.' Even so, our highest vacua are quite dense as compared to some of the distant stars, 'incandescent masses of nothing at all.'"—Harry N. Holmes in *OUT OF THE TEST TUBE* (*Ray Long & Richard R. Smith*).

*Science News Letter, April 21, 1934*

## PHYSICS

## Electromagnetism

● "THE ELECTROMAGNETIC theory, as developed by Maxwell and extended by his successors, must be regarded as the crowning achievement of all but the last decade of the nineteenth century. And it is still, after more than 50 years, a large factor, perhaps even a dominating one, in present-day physics, whether one judges its greatness by the fertility of its application to the problems of pure science or by the more practical test of its value in the applied science of radio communication.—F. K. Richtmyer in *INTRODUCTION TO MODERN PHYSICS* (*McGraw-Hill*).

*Science News Letter, April 21, 1934*

## SOCIOLOGY—GEOGRAPHY

## Renaissance

● "THIS apparently sudden rebirth of new ideas which are grafted on ancient tradition, this almost violent blossoming of new buds with wonderful energy, this spiritual revival similar to the awakening of nature in spring, often happens in Mediterranean history at different intervals, together with a vigorous assertion of individuality. . . .

"The obvious question arises as to why things of such moment happened more frequently if not exclusively around the Mediterranean: there are the same causes that have contributed to the formation of Mediterranean mentality; a facile emotionalism and receptivity, tempered by a well developed critical sense, due to the crossing for thousands of years of thousands of currents and streams of traffic and ideas deriving from opposite origins; last but not least the local climate where all nature's enchantments contribute to a constantly alert spirit, a vivid mind and watchful senses."—Arturo Castiglioni in *THE RENAISSANCE OF MEDICINE IN ITALY* (*Johns Hopkins*).

*Science News Letter, April 21, 1934*

## ENTOMOLOGY—SEISMOLOGY

## Termites and Earthquakes

● "THE LONG BEACH earthquake indicated that termite damage prepares the way for earthquake damage, and may thereby prepare the way for a conflagration. It is entirely possible that an earthquake may prepare the way for termite damage. In the recent southern California disturbance, numerous cracks were found in the concrete, brickwork, and stucco of literally thousands of buildings which were otherwise not seriously injured. Such cracks, as has been indicated in other chapters of this book, provide termites with access to the wooden parts of the buildings and should be carefully repaired to avoid future infestations."—Charles A. Kofoid in *TERMITES AND TERMITE CONTROL* (*Univ. of California Press*).

*Science News Letter, April 21, 1934*

## HISTORY

## Russia

● "THE FAIR yardstick in considering the present status of the Soviet Union is not a comparison with a highly developed industrial nation like the United States, the result of generations of development; but a measurement of the differential between what the Russian people potentially had before the

Revolution, and what they potentially possess today. . . .

The ordinary commodities which we unthinkingly buy every day at the five and ten cent stores or the chain stores are great luxuries to the Soviet citizen. . . .

Greater results have been obtained up to the present time on the cultural side of Soviet life than on the economic and the greatest progress of all has been in education. . . .

It is interesting to note that in 1931 newspapers in the U.S.S.R. were printed in 63 different languages.

Russia has probably more magazines of general information or with a literary slant than any other country in the world. . . .

The Orchestra of the Bolshoi Theatre in Moscow numbers 125 musicians and is as fine an organization as exists anywhere in the world. Innumerable symphony orchestras exist everywhere. . . . —Alcan Hirsch in INDUSTRIALIZED RUSSIA (*Chemical Catalog*).

*Science News Letter, April 21, 1934*

### Timely New Books of Popular Science

#### THE STORY OF ENERGY

**By Morton Mott-Smith.** The story of man's capture and harnessing of physical energy from 1765 to the present. Each stage of the development of machine-made energy is interestingly treated, including the contributions of Watt, Carnot, Mayer, Joule, Helmholtz, Clausius, etc.—Fulton's steam boat, Stephenson's locomotive, the Otto gas-engine, the turbine, the Diesel engine, etc. *Appleton New World of Science Series.* Illustrated. \$2.00.

#### CREATION'S DOOM

**By Desiderius Papp.** A powerful prophetic book on the probable future fate of the earth and the destruction of mankind by natural laws. The author's brilliant deductions are based on facts well known to science and his conclusions form exciting and absorbing reading. Illustrated. \$3.00.

#### ROMANTIC COPPER Its Lure and Lore

**By Ira B. Joralemon.** The romantic story of copper and the copper industry from prehistoric times to the present day. Here are facts about the metal itself, the discovery and development of mines, the lusty battles for control of these mines—the factors entering into its marketing and distribution. \$3.00.

**D. APPLETON-CENTURY COMPANY**  
35 West 32nd Street New York

# NEW BOOKS

## Archaeology and Anthropology

- THE ALASKAN NATIVES—H. D. Anderson and W. C. Eells—*Stanford Univ.*, \$5.  
ARABIA AND THE BIBLE—James A. Montgomery—*Univ. of Pennsylvania*, \$2.  
ARCHAEOLOGICAL MONUMENTS OF MEXICO—Department of Education, Republic of Mexico—*Appleton-Century*, \$3.  
ARCHAEOLOGICAL TOURS FROM MEXICO CITY—R. H. K. Marett—*Oxford*, \$1.25.  
BETH SHEMESH—Elihu Grant—*Haverford College*, \$4.  
CULTURAL ANTHROPOLOGY—Albert Muntsch—*Bruce*, \$3.  
THE DISTRIBUTION OF ABORIGINAL TRIBES AND LANGUAGES IN NORTHWESTERN MEXICO—Carl O. Sauer—*Univ. of Calif. Press*, \$1.  
EXCAVATING KIRJATH-SEPPHER'S TEN CITIES—Melvin Grove Kyle—*W. B. Eerdmans Pub. Co., Grand Rapids, Mich.*, \$2.50.  
LURISTAN BRONZES IN THE UNIVERSITY MUSEUM—Leon Legrain—*Univ. of Pennsylvania*, \$2.  
NAVAHO WEAVING—Charles Avery Amsden—*Fine Arts Press*, \$7.50.  
OUR PRIMITIVE CONTEMPORARIES—George Peter Murdock—*Macmillan*, \$5.  
PARTHIAN POTTERY FROM SELEUCIA ON THE TIGRIS—N. C. Debevoise—*Univ. of Michigan Press*, \$3.  
THE RACIAL MYTH—Paul Radin—*McGraw-Hill*, \$1.50.  
REBEL DESTINY: Among the Bush Negroes of Dutch Guiana—Mellville J. and Frances Herskovits—*McGraw-Hill*, \$5.  
THE ROYAL CEMETERY. VOL. II: Ur Excavations—C. Leonard Woolley—*Univ. of Pennsylvania*, \$15 until April 30, 1934; thereafter \$20.  
SEMITIC AND HAMITIC ORIGINS—Geo. A. Barton—*Univ. of Pennsylvania*, \$4.  
STANDARDS OF POTTERY DESCRIPTION—Benjamin March—*Univ. of Michigan Press*, 75c.  
WHITE INDIANS OF DARIEN—Richard O. Marsh—*Putnam's*, \$3.

## Astronomy

- THE ARCHITECTURE OF THE UNIVERSE—W. F. G. Swann—*Macmillan*, \$3.75.  
ATLAS OF THE MILKY WAY—Frank E. Ross—*Univ. of Chicago Press*.  
CALCULATION OF ORBITS OF ASTEROIDS AND COMETS—K. P. Williams—*Principia Press*.  
EARTH, RADIO, AND THE STARS—Harlan True Stetson—*McGraw Hill*.  
RELATIVITY, THERMODYNAMICS AND COSMOLOGY—R. C. Tolman—*Oxford*, \$9.50.

## Biology

- BIOLOGY FOR TODAY—F. D. Curtis, O. W. Caldwell and W. H. Sherman—*Ginn & Co.*, \$1.76.  
THE BIOLOGY OF BACTERIA: AN INTRODUCTION TO MICROBIOLOGY—A. T. Henrici-Heath, \$3.60.  
EMBRYOLOGY AND GENETICS—Thomas Hunt Morgan—*Columbia Univ.*, \$3.

This list includes late winter and spring titles already published and books promised by publishers later in the year. As financial advertisements and time tables are fond of reciting, this information is based on authoritative data, not guaranteed and subject to change.

THE GENUS DIAPORTHE AND ITS SEGREGATES—Lewis E. Wehmeyer—*Univ. of Michigan Press*, \$3.50.

- LIVING THINGS—W. Corwin—*Blakiston's*.  
MANUAL OF DETERMINATIVE BACTERIOLOGY—D. H. Bergey—*Williams & Wilkins*, \$6.  
MANUAL OF PLANT BIOCHEMISTRY—W. E. Tottigham—*Burgess*.  
THE MYXOMYCETES—Thomas Huston Macbride & G. W. Martin—*Macmillan*, \$6.  
NEW BIOLOGY—Smallwood, Reveley, Bailey—*Allyn and Bacon*, \$1.80.  
PLANT PARASITIC NEMATODES—T. E. Goodey—*Dutton*, \$6.75.  
OUTLINES OF BIOMETRIC ANALYSIS—Alan E. Treloar—*Burgess*, \$1.65.  
QUANTITATIVE BACTERIOLOGY—H. O. Halvorson & N. R. Ziegler—*Burgess*, \$1.90.  
STYLE BRIEF—*Wistar Institute*, \$2.  
THE TEACHING OF ZOOLOGY—W. H. Cole—*Appleton-Century*, \$2.  
WONDERS THROUGH THE MICROSCOPE—*Popular Science Monthly*, \$1.  
YOUR GERMS AND MINE—Berl ben Meyer—*Doubleday, Doran*.

## Botany and Agriculture

- BRITISH ECONOMIC GRASSES: THEIR IDENTIFICATION BY LEAF ANATOMY—S. Burr and D. M. Turner—*Longmans, Green*, \$3.75.  
CACTUS—Laura Adams Armer—*Stokes*, \$1.50.  
COMMERCIAL FLOWER FORCING—Alex Laurie—*Blakiston's*.  
GARDENS AND GARDENING 1934—Ed. by F. A. Mercer—*Studio Publications*, \$4.50 cloth, \$3.50 wrapper.  
A HISTORY OF AGRICULTURE IN THE STATE OF NEW YORK—Ulysses Prentiss Hedrick—*N.Y. Agr. Exper. Sta.*, \$3.  
MODERN GUIDE TO SUCCESSFUL GARDENING—M. G. Kains—*Greenberg*, \$2.50.  
THE PHYSICO-CHEMICAL PROPERTIES OF PLANT SAPS IN RELATION TO PHYTOGEOGRAPHY—J. A. Harris—*Univ. of Minnesota Press*, \$5.  
PIONEERING WITH WILDFLOWERS—George D. Aiken—*Author, Putney Vt.*, \$2.  
THE PLANNING OF AGRICULTURE—Viscount Astor and K. A. H. Murray—*Oxford*, \$2.25.  
RESEARCHES ON FUNGI: Vol. V.—A. H. R. Buller—*Longmans, Green*, \$10.  
SMALL-FRUIT CULTURE—J. S. Shoemaker—*Blakiston's*, \$3.50.  
TEXAS GRASSES—W. A. Silveus—*Author, San Antonio*, \$5.50.  
TRANSACTIONS OF THE BOSE RESEARCH INSTITUTE, CALCUTTA. LIFE MOVEMENTS IN PLANTS, VOL. VIII—Jagadus C. Bose—*Longmans, Green*.  
TREES OF THE SOUTHEASTERN STATES—W. C. Coker & H. R. Totten—*Univ. of North Carolina Press*, \$2.  
USEFUL WILD PLANTS OF THE UNITED STATES AND CANADA—Charles Francis Saunders—*McBride*, \$3.  
VIRUS DISEASES OF PLANTS—John Grainger—*Oxford*, \$2.  
WATER GARDENS AND GOLDFISH—R. W. Sawyer and E. H. Perkins—*Dodd, Mead*, \$2.

## Chemistry

- ANNUAL REVIEW OF BIOCHEMISTRY, Vol. III—J. M. Luck—*Stanford Univ.*, \$5.