

ZOOLOGY



Rikki-Tikki-Tavi

KIPLING celebrated a friend of his, a mongoose named Rikki-Tikki-Tavi, an active, restless, rather quarrelsome little fellow who ruled the house and kept it free of rats and snakes. This relative of the weasel is a much-appreciated house animal in India and elsewhere in the East, where he performs the functions assumed with us by the cat. Only Tabby doesn't undertake snakes, which are said to be Rikki's favorite dish. He has the further advantage of being able to follow his vermin prey into many cracks and holes where the wider-bodied cat could not squeeze herself.

But if he has more than the house-hold virtues of a cat, Rikki also has more than her vices. He was transplanted to the West Indies many years ago, and like most immigrants who take hold at all he has thriven better in his new home than in his old. There he has developed into an inveterate chickenthief and bird killer; so much so that in parts of the island he threatens to wipe out the native bird population.

Under his more classical name of ichneumon, Rikki was known to the Greeks and Romans, at least to such of them as travelled in Egypt. They propagated the story about him, that he kept down the crocodile population, in spite of his diminutive size, by the simple expedient of finding their eggs in the sand and eating them. Modern zoologists disagree on this point.

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Wall paintings showing ancient Mound Builder Indians in full regalia and color are installed in the Archaeological Museum at Phillips Academy, Andover, Mass. ENTOMOLOGY

# Corn Acreage Reduction May Reduce Pests

REDUCING corn acreage in accordance with the program of the Department of Agriculture may bring the farmer indirect benefits in addition to the promised Government pay-check. He stands to get rid of at least a part of the insect pests that prey on the roots of his corn. How this may come about is explained by J. H. Bigger of the Illinois Natural History Survey.

In ordinary farm practice in the Corn Belt, corn is planted two or more years in succession in the same fields, and then other crops, especially clover, alfalfa or other legumes, are introduced into the rotation program. The succession of corn immediately after corn gives the insect enemies that are left in the soil from the previous year's crop altogether too good feeding, until the introduction of a crop whose roots they cannot eat checks their multiplication.

In several rotation experiments de-

scribed by Mr. Bigger, it was demonstrated that long successions of corn encouraged root-feeding insects, while short successions kept their numbers under control. He feels that when the farmer is pledged to produce less corn he will give a more prominent place in his rotation schedule to legume crops, thereby cheating his enemies out of their accustomed easy feeding.

A further advantage that will accrue to the farmer is the smaller quantity of seed he will need when he does plant corn. When an insect-infested field is planted, a certain excess of seed has to be put into the ground, to allow for the killing that the enemy insects can be counted on to do. This extra seed of course costs extra money. If he does not need to pay this tribute to the insect pests the farmer can keep this money in his pocket.

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Additional Reviews

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### First Glances at New Books

Astronomy

SUNS AND WORLDS—W. H. Steavenson—Black, 104 p., \$1. This is an excellent little introduction to astronomy, an addition to the How-&-Why Series edited by Gerald Bullett. Dr. Steavenson, a medalist of the Royal Astronomical Society and past president of the British Association, tells his story in a simple, straightforward style that might well be emulated by other scientists writing for popular consumption.

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#### Education

YEAR-BOOK OF THE NEW YORK INSTITUTE FOR THE EDUCATION OF THE BLIND, 1933, 51 p., free. This year-book should find a wider circle of readers than year-books and annual reports usually get. The Century of Progress in the education of the blind which it pictures, both verbally and photographically, will probably be an eye-opener to many of the seeing public who have not yet learned, for instance, that all games, track meets and dancing classes are part of the regular activities at schools for the blind as well as at schools for the seeing.

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Ethnology-Technology

NAVAHO WEAVING—Charles Avery Amsden-Fine Arts Press, 261 p., 123 pl., \$7.50. A very fine book, covering the subject of Navaho weaving technic, dyes, and the uses of Navaho textiles, and following with a history of Navaho weaving from "the first sheep" down to a prediction of what the future holds for the Indian weavers. The illustrations, many in color, include photographs of more than a hundred old, authentically dated blankets. While a specialized subject can rarely hope for a wide circle of general readers, this book is sufficiently attractive, so that any one who has ever taken a second look at an Indian blanket would find much of interest inside the very decorative covers.

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#### Paleontology

A POPULAR GUIDE TO THE NATURE AND THE ENVIRONMENT OF THE FOSSIL VERTEBRATES OF NEW YORK—Roy L. Moodie—*Univ. of the State of New York*, 122 p., 49 illustrations, 45c. This appears as New York State Museum Handbook No. 12.

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## First Glances at New Books

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History of Science

A HISTORY OF DARWIN'S PARISH, Down, Kent-O. J. R. and Eleanor K. Howarth-Russell & Co., Southampton, viii+88 p., 1s. 6d. Charles Darwin was the grandson of a scholarly Church of England clergyman and he lived most of his life in the quiet parish where he was born. We are all of us more or less influenced by our environment, so that it is of more than ordinary interest to have access to the environmental background of this man who changed much of the world's course of thought and action. The Howarths tell their tale appropriately: with a quiet decency and occasional touches of quiet humor.

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#### Seismology

EARTHQUAKE RISKS IN ARKANSAS— George C. Branner and J. M. Hansell— Arkansas Geological Survey, 13 p., 3 plates, 60c. Arkansas shared prominently in the famous New Madrid earthquake of 1811, which re-made a great deal of the bottom lands along the Mississippi and its southern tributaries. There have also been many lesser shocks during the state's recorded history, so that although it is not commonly thought of as "earthquake country" it is nevertheless actually a seismic region of some importance. This compact study will therefore be valuable to geologists, engineers and the scientific public generally. This appears as Information Circ. No. 4.

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#### Radio

WIRELESS OVER 30 YEARS—R. N. Vyvyan—George Routledge & Sons, London, 256 p., 8s 6d. A history of wireless from its early days down to the present.

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#### Education

THE SMALLER SECONDARY SCHOOLS—E. N. Ferriss, W. H. Gaumnitz, and P. R. Brammell—U. S. Govt. Print. Off., 236 p., 15c. Monograph No. 6 of the National Survey of Secondary Education.

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#### General Science

SCIENCE IN THE ELEMENTARY SCHOOL

—Maryland State Dept. of Education,
331 p., 50c. Material and suggestions
for six units of study in each of the

seven elementary grades are provided by this Bulletin prepared by Miss I. Jewell Simpson. This is a part of the laudable effort on the part of those in charge of our school system to enlarge and make more useful science teaching in the graded schools.

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#### Technology-Economics

THE MACHINE UNCHAINED — Leo Hausleiter—Appleton-Century, 376 p., \$3. A German engineer-economist with a somewhat different viewpoint from those in this country who have written upon the impact of technology upon our civilization, discusses the revolution in the world economic system from the first steam engine to our present crisis of plenty. The dominating thought: "The mechanization of the world mechanized man, mechanized the spirit. Machinery assumed mass forms. The tempestuous liberation of productive forces shook all that was firmly rooted in the earth. Man turned to a machine (he works like a machine) and the machine turned human (it works like a human being) and they came to follow the same path, chained to one another by impersonal thought in terms of money.

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#### Research

MANUAL ON RESEARCH AND REPORTS—Amos Tuck School of Administration and Finance, Dartmouth College—Williams & Wilkins, 108 p., \$1.25. The manual has special application to investigations in the field of business, economics and public affairs. Second printing.

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#### Standards

INDEX TO A. S. T. M. STANDARDS AND TENTATIVE STANDARDS—American Society for Testing Materials, 124 p., free. The index, issued annually, is a valuable reference in which may be located bound A. S. T. M. publications concerning specifications, methods of testing, recommended practices and definitions on engineering subjects.

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#### Physics-Engineering

GYROSCOPIC STABILIZATION OF LAND VEHICLES—J. F. S. Ross—Longmans, Green, 172 p., \$5.25. This is an inquiry into whether monorail traction is scientifically sound and definitely practicable. Dr. Ross concludes that it is and that if once the arduous and extensive stage of experiment is successfully surmounted, we may look back upon double-rail traction as antiquated and clumsy. The book contains a comprehensive descriptive, mathematical and historical treatment of the problem.

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#### Education

A CENTURY OF PROGRESS EXPOSITION, CHICAGO 1933—Reuben H. Donnelley Corp., \$5. A beautiful picture book which portrays in well-reproduced photographs and color plates the Century of Progress Exposition. Scientists will be particularly interested in the illustrations of the scientific exhibits in the Hall of Science and in commercial displays.

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#### Forest Ecology

POST-LOGGING DECADENCE IN NORTHERN HARDWOODS—Ralph C. Hall—Univ. of Mich. Press, 66 p., 25c. Regression in vegetation of cut-over land is traced to unfavorable changes in the physical environmental factors, rather than to the rise of biotic enemies at first suspected.

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#### Engineering-Sociology

THE ANTI-SLUM CAMPAIGN—Sir E. D. Simon—Longmans, Green and Co., London, 206 p., 2s 6d. A British engineer, former mayor of Manchester and parliamentary secretary to the Ministry of Health, surveys the problem of providing adequate housing in his country.

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#### Bacteriology

BACTERIOLOGY AND SANITARY SCIENCE—Louis Gershenfeld — Lea and Febiger, 493 p., \$4.50. Second edition, thoroughly revised, of a comprehensive textbook for students in pharmacy, chemistry and allied sciences.

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