

is also a research associate of the Carnegie Institution, extended the usefulness of the new instrument in measuring light and color of faint stars, clusters of stars and nebulae.

Dark stuff in outer space, unseen by human eyes, actually outweighs the luminous material revealed in the form of shining stars, it is considered probable by Dr. Stebbins. Any reasonable assumption as to the nature of the interstellar dust leads, he said, to enormous calculated masses.

Science News Letter, December 9, 1933

PHYSIOLOGY

Radium Poisoning Treatment Promising

FUTURE sufferers from radium poisoning may have hope for recovery by a method now being developed by Robley D. Evans, physicist of the University of California and Dr. R. Ware of the Los Angeles General Hospital.

These investigators are now trying out their new method on the few survivors of the unfortunate luminous dial paint workers of ten or more years ago, and so far the results are promising. Radium workers in mines and in laboratories will always be exposed to this dread form of poisoning.

The method follows the work of Dr. J. C. Aub, Prof. F. B. Flinn and Dr. S. M. Seidlin and depends on the fact that calcium and radium are very similar in chemical properties. The calcium absorbed by the body goes mainly into the bony structure and therefore the radium also accumulates there. Since the bones are comparatively permanent in composition the radium remains in place, giving off radiations which wreak destruction on the blood-producing centers and on surrounding bone structure.

Now an excess of parathyroid gland hormone will disturb the normal calcium metabolism, causing the system to lose an excess of calcium. Consequently it ought to eject radium too. Of course after this depletion of the calcium has gone far enough the diet must be made rich in calcium to build the bones up again.

Essentially the process is a rinsing out of the radium-contaminated calcium and a substitution of fresh pure calcium. It is a drastic treatment.

To date it has speeded up the rate of elimination of radium to three times the normal rate.

Science News Letter, December 9, 1933

● First Glances at New Books

Genetics

NATURE AND NURTURE—Lancelot Hogben—*Norton*, 143 p., \$2.75. The reader who wants to know the difference between what doctors call familial and hereditary diseases, the scientific facts about the influences of heredity and environment and what may be the results of marriage of close relatives, will find these and many other interesting genetic problems ably discussed in this book. However, the subject of genetics is not a simple one, and while Prof. Hogben has simplified and clarified it greatly, the book nevertheless requires careful, thoughtful reading.

Science News Letter, December 9, 1933

Ornithology

TRAVELING WITH THE BIRDS—Rudyard Kipling—*Donohue*, 64 p., 12 pl., \$1.50. This book is unique in many respects. It is apparently aimed at children, for its text consists of mostly short words in large print, but the scientific information presented is worthy of the full consideration of any adult. It not only tells about the birds as we see them during part of the year but of their ways southward in the winter, illustrating range and route with clean-cut little maps. And the superb full-page plates in color, by Walter Alois Weber, will delight readers of any age. An excellent book to give at Christmas.

Science News Letter, December 9, 1933

Demography

AMERICAN AGRICULTURAL VILLAGES: 1930—Irving Lorge—*Amer. Statistical Assn. (Columbia Univ.)*, 133 p., \$1. An analysis of census data on a number of small American communities, minutely analyzed, intended as basic data for the new program of planned population distribution. This publication constitutes No. 1 of a new monograph series.

Science News Letter, December 9, 1933

Nutrition

THE NUTRITIVE VALUE OF THE BANANA—Walter H. Eddy—*Teachers College, Columbia Univ.*, 37 p., 25c. A monograph of interest and value to nutritionists and child specialists.

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Engineering

A LIMITED WAY PLAN FOR THE GREATER CHICAGO TRAFFIC AREA—John A. Massen and others—*Chicago City Council*, 103 p., limited ed., price not yet fixed. An elaborately developed plan for handling the terrific traffic of a modern metropolis by means of specially constructed, isolated high-speed traffic ways, complete even to the healthy suggestion that it be paid for out of current taxes instead of by another bond issue tossed into an already waterlogged market. The planning committee is to be congratulated on its sound fiscal sense as well as on its sweeping engineering vision. The report was prepared by the Albert Russell Erskine Bureau for Street Traffic Research in Harvard University, of which Dr. Miller McClintock is director.

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Technology

HENLEY'S TWENTIETH CENTURY BOOK OF RECIPES, FORMULAS AND PROCESSES—Ed. by Gardner D. Hiscox—*Henley*, Rev. Ed., 809 p., \$4. Among the improvements to this widely used reference text are new processes from the paint and lacquer industry and formulas for chromium painting. The book is essential to the man whose hobby is a home workshop and would be very useful in any household. Some of the information that it gives concerns dyes, inks, waterproofing, perfumes, cement, plating, glass, dentifrices, soaps, glues, adhesives, cosmetics and oils.

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Photography

THE AMERICAN ANNUAL OF PHOTOGRAPHY, 1934—Edited by Frank R. Fraprie—*American Photographic Publ. Co. (Boston)*, 296 p., \$1.50. Excellent halftone reproductions of firstclass photographs, technique of aperture and timing, the alchemy of the darkroom, brief discussion of "sixteen-millimeter sound," lists of honors and prizes for the past year—this photographers' annual is a worthy addition to its predecessors in that it goes a step beyond them.

Science News Letter, December 9, 1933

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