Other birds that gave up flight to live on land instead of in the water stressed the evolution of legs: powerful implements in the ostrich, ending in stump toes that are almost hoofs; wide-toed feet among the swamp-dwellers like the crane, operating snowshoe-fashion on the soft, yielding muddy bottoms.

Even among the fliers, greater specialization: long wings and short tails among the great ones that brave the upper winds, like albatross and eagle; short wings and long, frequently ornamental tails among the flitters through treetops and bushes, like the macaws and the magpies.

And so the tale might be continued indefinitely: excellent fitting to the task before them, of beak, feather, claw, wing and tail. Truly, the birds must be voted biological successes!

Science News Letter, December 2, 1933

GENETICS

"Like Attracts Like" May Explain Childless Couples

THE OLD saying that "like attracts like," which has been verified by statistical studies of marriage selection, may be the explanation of some childless marriages.

A study of 107 childless couples conducted by C. M. Pomerat, of Clark University, and reported by him to *Science* reveals that the men and their wives were unusually alike in height and trunk length. These couples all desired children but remained infertile.

Mr. Pomerat is continuing his research. These initial findings, if confirmed, are eugenically important because they suggest a possible relation between the similarity of man and wife and the possibility of bearing children, he pointed out.

Science News Letter, December 2, 1933

More than two million children of school age, up to 16 years, are not receiving education during this education crisis, a government statement shows.

Ten thousand bushels of pine cones and other seeds are being harvested by civilian conservation corps workers for tree planting in the Tennessee Valley.

The problem of dust as a health hazard in industry is shown by the case of a contractor who had more than 400 damage suits for silicosis, totalling $4,000,000, filed against him by workers boring a three-mile tunnel.

•First Glances at New Books

Additional Reviews on Page 368

Psychology-Heredity

HEREDITY AND ENVIRONMENT—Gladys C. Schwesinger—*Macmillan,* 484 p., $4. A comprehensive review of studies bearing on the moot question of which contributes most to human intellectual ability, the inherited ability the infant brings into this world with him or the many varied experiences he encounters after his arrival. The author concludes that extremists on both sides of the question are wrong, and the question still awaits a conclusive answer.

Science News Letter, December 2, 1933

Mechanical Engineering

MODERN ELECTRIC AND GAS REFRIGERATION—A. D. Althouse and Carl H. Turnquist—*Goodheart-Willcox Co.,* 265 p., $4. A practical handbook and text which should be of great service to those undertaking to prepare themselves to service mechanical household refrigerators. It will also interest any individual who wishes to know what makes it cold in his modern kitchen refrigerator.

Science News Letter, December 2, 1933

General Science-Education

SCIENCE STORIES, BOOK ONE—Wilbur L. Beachamp, Gertrude Crampton and William S. Gray—*Scott, Foresman,* 144 p., 60c. Simple stories on seasons, weather, animals, plants, sun, moon and stars written for easy reading and understanding by first-graders. The illustrations in full color are attractive.

Science News Letter, December 2, 1933

Mathematics—Education

GEOMETRY PROFESSIONALIZED FOR TEACHERS—Halbert Carl Christofferson—*George Banta,* 204 p., $1.50. This book is designed to give a teacher or prospective teacher a mastery of the subject matter of geometry and simultaneously to train him in the method of teaching demonstrative geometry in the high schools.

Science News Letter, December 2, 1933

Biology

LA PALEONTOLOGIE & LES GRANDS PROBLEMES DE LA BIOLOGIE GENERALE, Part I, L'Evolution Adaptations et Mutations—Charles Fraipont and Suzanne Leclerq—*Hermann & Cie,* 38 p., 9 fr. Part II, Adaptations et Mutations—Charles Fraipont—*Hermann & Cie,* 24 p., 6 fr.

Science News Letter, December 2, 1933

Hygiene

PHYSIOLOGICAL HEALTH—ed. by Jay B. Nash—*Barnes* 308 p., $2. Fourth volume in the New York University School of Education series on Interpretations of Physical Education. Physiological health is defined, its relationship to other educational objectives discussed, and methods of attaining it are described. The book is written by specialists in health education and physical education, mental hygiene and psychiatry, and medicine. It is somewhat surprising not to find, in a book on physiological health, any contributions from physiologists.

Science News Letter, December 2, 1933

Psychiatry-Psychology

DEMENTIA PRAECOX—Harriet Babcock—*Science Press,* 167 p., $3. As the subtitle indicates, this is a psychological study, not a medical work. In the modern hospital for the insane, the psychologist and the physician are of mutual assistance in solving the great enigma of mental disease. In the study here reported, 216 sane persons of widely diverse mental age are compared with 206 persons suffering from dementia praecox. The results show that the patients with this type of mental disease have a mental defect even in the earliest stages, and the author concludes that "it is unwarranted to attribute this inefficiency to any but physiological causes, although the exact nature of these causes may not be known."

Science News Letter, December 2, 1933

Education

PROGRAMS OF GUIDANCE—William C. Reavis—*Govt. Print. Off.,* 144 p., 10c. Monograph No. 14 of the National Survey of Secondary Education describing what is being done by the schools in the way of vocational and educational guidance.

Science News Letter, December 2, 1933

Peace-Education

INTERNATIONAL UNDERSTANDING THROUGH YOUTH—International Institute of Intellectual Co-operation—*World Peace Foundation,* 200 p., cloth $1.85; paper $1.50. A report of an inquiry into present practices with regard to the exchange of school pupils between nations and the visiting of families in foreign countries for the purpose of giving their children understanding of other peoples.

Science News Letter, December 2, 1933

•First Glances at New Books

Additional Reviews on Page 367

Education

SOCIAL EDUCATION—Eduard C. Lindeman—*New Republic,* 231 p., $1. The education offered by our schools should be better adapted to equip the individual to master social problems. In his preface the author says, "The great scientific revolution is still to come. It will ensue when men collectively and cooperatively organize their knowledge for application to achieve and make secure social values; when they systematically use scientific procedures for the control of human relationships and the direction of the social effects of our vast technological machinery. Great as have been the social changes of the last century, they are not to be compared with those which will emerge when our faith in scientific method is made manifest in social works."

Science News Letter, December 2, 1933

Reference Books

INTERNATIONAL BOOK OF NAMES—C. O. Sylvester Mawson—*Crowell,* 308 p., $2. A dictionary of the more difficult proper names in literature, history, philosophy, religion, art, music, and geography.

Science News Letter, December 2, 1933

Astronomy

A STAR ATLAS AND REFERENCE HANDBOOK (EPOCH 1920)—Arthur P. Norton—*Eastern Science Supply Co.,* 51p. 18 maps, $4.50. A new and fifth edition of a British atlas primarily designed for those amateur telescopists whose instruments are mounted either on alt-azimuth stands or as equatorials without graduated circles.

Science News Letter, December 2, 1933

Nutrition-Dental Hygiene

DIET AND DENTAL HEALTH—Milton T. Hanke—*University of Chicago Press,* 236 p., limited advance ed., $1; reg. ed., ready Feb. 1, 1934, $4. Working with a group of Chicago dentists on the relation of nutrition to dental health, Dr. Hanke developed a dietary regime which was considered definitely beneficial to the private patients of the cooperating dentists. Scientifically controlled study of the regime was then made on a large scale at a children's home and the results on private patients were apparently confirmed. Both parts of the study are reported in this volume, which is liberally illustrated. Dentists, physicians and nutrition experts will be interested. The studies were carried on partly at the Otho S. A. Sprague Institute at the University of Chicago and partly at Mooseheart, City of Childhood of the Loyal Order of Moose.

Science News Letter, December 2, 1933

Chemistry

THE ARTIFICIAL TRANSMUTATION OF THE ELEMENTS—Lord Rutherford—*Oxford Univ. Press.,* 12 p., 40c. The thirty-fifth Robert Boyle Lecture delivered before the Oxford University Junior Scientific Club last June.

Science News Letter, December 2, 1933

Nature Study

THE CALIFORNIA DESERTS—Edmund C. Jaeger—*Stanford Univ. Press,* 207 p., $2. The Mohave and Colorado deserts constitute two of America's most fascinating regions for those who like the out-of-doors; they offer such sharp contrasts in climate and topography with the milder regions wherein most of us dwell, and the myriad devices wherewith their many animal and plant inhabitants meet the hard conditions of their lives make them still more intriguing. Prof. Jaeger tells all of this most interestingly, and the numerous line illustrations help the newcomer to recognize the inhabitants.

Science News Letter, December 2, 1933

Engineering

REPORT OF THE COMMISSION TO STUDY THE PROPOSED HIGHWAY TO ALASKA, 1933—*Govt. Print. Off.,* 116 p., 25c.

Science News Letter, December 2, 1933

Psychic research

A CERTAIN TYPE OF PSYCHIC RESEARCH, AND OTHER REVIEWS—Herbert Thurston and others—*Boston Society for Psychic Research,* 59 p., 60c.

Science News Letter, December 2, 1933

Journalism

AROUND THE COPYDESK—George C. Bastian, Leland D. Case, R. E. Wolseley—*Macmillan,* 200 p., $2.25. An exercise book in the preparation of news copy for the printer.

Science News Letter, December 2, 1933

Mycology

MUSHROOMS—W. B. McDougall—*Houghton Mifflin,* 151 p., $3.50. Mushrooms are always fascinating, both as objects of study and as subjects for practical gastronomy. One of the troubles with the latter aspect of their interest, however, is that almost everybody is afraid of them, for it is well enough known now that none of the old rule-of-thumb tests for poisonousness is at all reliable, and that to be safe you must simply know your mushrooms. Prof. McDougall makes identification easy by clearly-written plain-English text and first-class photographic illustrations, and he adds judicious comment on the relative virtues of the edible species.

Science News Letter, December 2, 1933

Electricity

McDONALD'S ELECTRICAL DICTIONARY—George McDonald — *Meador,* 178 p., $1.50. Both practicing engineers and students should find this book valuable.

Science News Letter, December 2, 1933

Physics

INSIDE THE ATOM—John Langdon-Davies—*Harper,* 184 p., $2. This very popularized presentation of physics in everyday life should be of interest to science-minded boys and girls in particular. It is profusely illustrated with line sketches.

Science News Letter, December 2, 1933

Mathematics

DESCRIPTIVE GEOMETRY — F. H. Cherry—*Macmillan,* $2. This text, by the associate professor of mechanical engineering at the University of California, attempts to improve the unsatisfactory reputation that descriptive geometry has among students.

Science News Letter, December 2, 1933

Museology

WHO'S WHO IN THE MEMBERSHIP OF THE AMERICAN ASSOCIATION OF MUSEUMS—Comp. by Mary A. Bingham—*Amer. Assn. of Museums,* 47 p., $1.

Science News Letter, December 2, 1933