



Chestnuts and Chinquapins

➤ **GATHERING CHESTNUTS** after the first frost brought the burrs to the ground was once as traditionally American as a Thanksgiving Day turkey garnished with cranberry sauce. Indeed, the feast day bird was often stuffed with chestnut dressing.

However, the American chestnut has been forcibly removed from our forests by a fungus-caused blight and most chestnuts bought on today's market are imported from Italy or Spain. The few homegrown varieties are from Oriental trees imported to this country.

Beginning about the turn of the present century with a little focus of infection around New York, the imported Oriental pest that eliminated the chestnut spread by leaps, until today all that is left of America's once beautiful native chestnuts are a few scattered sick trees in western Tennessee and northern Mississippi. There are also a scattered few healthy trees left in northern Midwest states and on the Pacific Coast.

In the past 40 years government scientists and forest experts have been at work trying to develop a new chestnut to replace the native type.

The nuts are pleasant eating for human beings and important food for such wildlife as wild turkeys, but that is the smallest part of the story. Bark and wood are about our most important source of tannin for making leather, and the chestnut tree is useful for this as well as in places where

resistance to decay is important, as in telephone posts and railroad ties.

Tourists through the Allegheny highlands and in other forested parts of this country, see many naked skeletons standing out above the woods, monuments of the great tragedy that struck the American chestnut. These dead stands of blight-killed trees are being "mined" for their wood, but their numbers grow smaller every year.

Although believed to have been spared at first, the fact finally developed that the deadly fungus disease was attacking chinquapins, the native shrubby or small tree species related to the chestnut. Working with some of these native small trees, with blight resistant chestnut species brought in from the Orient where the blight itself came from, and with sprouts that have sprung up from killed chestnuts, some fairly resistant hybrids have been obtained.

Within a span of years, it is expected that hybrid American-grown chestnuts may once more be available for their traditional task of stuffing the traditional bird.

Science News Letter, November 20, 1954

Questions

DENTISTRY—What habits cause bad alignment of teeth? p. 324.

□ □ □

ENGINEERING — What are advantages of pipelines for wartime transportation of gasoline? p. 329.

□ □ □

NUTRITION—How many pounds of feed are needed to make one pound of turkey? p. 325.

□ □ □

PHYSIOLOGY—What would be the advantages for pilots of talking with their ears? p. 325.

□ □ □

PUBLIC SAFETY—How can plastics injure workers? p. 328.

□ □ □

PHOTOGRAPHS: Cover, General Electric Company; p. 323, Hank Hoag; p. 327, R. A. Hefner; p. 330, Fremont Davis; p. 336, Dodie.

PHILOSOPHICAL LIBRARY BOOKS

□ **THE PAINTED MEN** by T. C. Lethbridge. This is the story of the Picts: a "people" who had been in the British Islands some 1500 years before William the Conqueror arrived, and whose history goes back beyond the Siege of Troy. Fully illustrated. **\$6.00**

□ **THE COMPOSITION AND ASSAYING OF MINERALS** by John Stewart-Remington and Dr. Wilfred Francis. In this guide to mineralogy the crystalline forms of numerous metallic minerals are referred to in the descriptions of the ores mentioned. **\$5.50**

□ **NUCLEAR PHYSICS** by Werner Heisenberg. Deals, among other things, with Bohr's theory, the periodic system and the extra-nuclear structure of atoms. The main subject of the book includes radioactivity, the binding energy of nuclei, nuclear structure, artificially induced nuclear transmutations and with the methods of observation and of producing nuclear transmutations. The work concludes with some account of the practical applications of nuclear physics. With 18 halftone illustrations and 32 line illustrations. **\$4.75**

□ **HISTORICAL ASPECTS OF ORGANIC EVOLUTION** by Philip G. Rothergill. This is the first book dealing with the "evolution of evolution"—that is, with the gradual development of the concept of biological change through the ages, and its application in various stages of man's understanding of the physical world. **\$8.00**

□ **WATER** by Sir Cyril S. Fox. This volume provides the reader with an outline of the Science of Water, both in the academic and practical aspects of the subject; includes details regarding its characteristics, its occurrence and its utilization. Illustrated. **\$8.75**

□ **OUR NEIGHBOR WORLDS** by V. A. Firsoff. A survey of the solar system in conformity with the most recent information is used as a basis for a careful investigation of interplanetary travel. Illustrated. **\$8.75**

□ **FATIGUE OF METALS** by R. Cazaud. Dr. Cazaud is well known and highly esteemed in research circles; he is regarded, not only in France but throughout the industrial world, as a leading authority on the fatigue of metals. **\$12.50**

□ **RELATIVITY AND REALITY** by E. G. Barter. A re-interpretation of anomalies appearing in the theories of relativity. **\$4.75**

□ **PLANT DISEASES** in Orchard, Nursery and Garden Crops by Ernest Gram and Anna Weber. Produced for the first time in an English edition from *Plantensydomme* by two Danish horticultural experts; a Danish work of world-wide reputation. Illustrated. **\$18.50**

□ **TREASURY OF PHILOSOPHY** edited by Dagobert D. Runes. One of the most comprehensive collections of philosophical writings ever published in one book, covering 500 B.C. to date. Much of the material appears here in English translation for the first time. **\$15.00**

□ **CLIMATE, VEGETATION AND MAN** by Leonard Hadlow. In this book an attempt has been made to survey life in its climatic setting. Illustrated. **\$4.75**

□ **OUT OF MY LATER YEARS** by Albert Einstein. The book shows Einstein the philosopher, Einstein the scientist, and Einstein the man. **\$4.75**

□ **SCIENTIFIC AUTOBIOGRAPHY** and other papers by Max Planck. These last writings of the great physicist deal with problems that include true and fictitious issues in science; the meaning and limit of exact science; physics and causality; natural sciences and the religious world. Autobiographical notes reveal his personal and scientific development. **\$3.75**

□ **THE SOCIAL INSECTS** by O. W. Richards, D.Sc. Dr. Richards shows that the scientific approach has been able to lay bare far more of wonder and amazement than speculation or legend. "Warmly commended"—Julian Huxley. Illustrated. **\$4.75**

□ **AETHER AND ELECTRICITY** by Sir Edmund Whittaker. The first exhaustive history of the classical and modern theories of aether and electricity. Set of two volumes. **\$17.50**

□ **ILLUSTRATED TECHNICAL DICTIONARY** edited by Maxim Newmark. Recognized as the Standard Work in the field. Detailed, precisely labeled mechanical drawings of instruments, tools, machines, metal furnaces, etc. Laws, functions illustrated by equations, diagrams and tables. Industrial processes visualized by charts and ideograms. Defines all terms used in Applied Sciences, Graphic, Industrial Arts and Mechanical Trades—from Air and Marine Navigation to Synthetics and Electronics. **\$5.00**

□ **ENCYCLOPEDIA OF ATOMIC ENERGY** by Frank Gaynor. More than 2000 entries defining and explaining concepts and terms in nuclear physics and atomic energy makes this volume a vital handbook for all those concerned with atomic science. Illustrations, charts, tables. **\$7.50**

MAIL THIS COUPON TODAY

PHILOSOPHICAL LIBRARY, Publishers
15 East 40th St., Desk 35, New York 16, N. Y.

Send books checked. To expedite shipment I enclose remittance \$.....

NAME.....

ADDRESS.....

YOUR HAIR

Its Health, Beauty and Growth

By Herman Goodman, M.D.

A medical specialist tells you what to do to save and beautify your hair, stimulate healthier hair growth, and deal with many problems, as: Dandruff—gray hair—thinning hair—care of the scalp—baldness—abnormal types of hair—excessive oiliness—brittle dryness—hair falling out—infection—parasites—hair hygiene—glands—diet—coloring—and myriad other subjects concerning hair.

"Discusses the many problems of hair retention, regrowth and removal."—Science News Letter.

287 pages—PROFUSELY ILLUSTRATED!
Price \$2.95, Postfree. 5-day Money-Back Guarantee

EMERSON BOOKS, Inc., Dept. 248-K

251 W. 19th Street, New York 11

NOW—Quick—Slick Shoe Shines



without Daubers or Brushes
FOR LESS THAN 1/2 CENT

Now your shoes can always have that "well-groomed" look. For that important, last minute "touch-up" or complete shine. SHUMIT fits your hand like a mitten. Apply wax to any color shoes. Buff with back side to a slick shine. Special "monkey-face" fabric makes it fast and easy. Odorless—Greaseless. Ideal for travelers, sales personnel, professional people, office workers, executives, etc. One SHUMIT good for over 100 shines. Price 2 for only \$1 postpaid. Keep one handy at home, the other in desk at work or carry it with you. Use one 10 days and if you are not completely satisfied, return both for full refund. Send your name, address and only \$1 today to

Wax and Buffer
"All-in-One"
USE ON ANY
COLOR SHOE
For Men, Women
Children

Save Time, Money **ANCHOR SALES, Dept. 225**
11 East Huron St., Chicago 11, Ill.