





Wheat

ACROSS a million fields the combines clank and clatter, their cutting bars flashing in the sun. Dusty, sweating crews of men, following a golden river northward, cut a giant swath across the plains. Wheat is coming in . . . wheat, the most triumphant of all grasses, upon whose bountiful kernels western civilization has grown for 7,000 years.

Into overflowing bins and towers, into vast hangars once echoing with the roar of U. S. war-time might, into rusting Liberty ships lying at permanent moorings, flows the endless stream of grain, too much for 150,000,000 people, too much for sleek cattle and tubby hogs.

Seedtime and harvest, surplus and shortage. The cycle is that of civilization itself. Civilization built itself on wheat.

The earliest inscriptions on the tombs of ancient Egypt and Mesopotamia show that the peoples of prehistory fed largely on two grains, barley and wheat. Barley came first, but wheat was not far behind. From these grains both bread and beer were made.

Wheat must have been cultivated around the earliest campfire settlements, long before the Pharaohs. Kernels have been found in ancient places where they fell 5,500 years ago. The earliest wheat on record was already a cultivated, improved grass.

In those settlements, resurrected by archaeologists, have been found the tools of grain: sickles of baked pottery, others made of wood or bone edged with sharp flakes of flint. In the age of bronze came the earliest scythes of metal. Men grew wheat while still hunting the wild animal for meat and winter clothing.

Yet wheat today is so unlike any common wild grass that for a long time it was thought the parent plant, the original wild species, was extinct. But shortly before the first World War, a brilliant young Jewish botanist named Aaronsohn discovered wild wheat growing on Mount Carmel in Palestine.

The grain stem he discovered is unlike cultivated wheat. The central stem of its head, from which the kernels sprout, was so brittle that it crumbled into pieces when the grain was ripe. It could not be harvested or threshed by modern means, nor perhaps even by the hand methods of primitive peoples.

But in their cultivation, men of the Stone Age practiced plant improvement in some unrecorded way, producing a solid head on wheat many centuries before their wise men learned to write down the story of their exploit.

It is still that golden, waving grass by which men and nations measure wealth and power. On the Great Plains the wheat is in. The staff of life is being harvested.

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Books of the Week

TO SERVE YOU: To get books, send us a check or money order to cover retail price. Address Book Dept., SCIENCE NEWS LETTER, 1719 N St., N. W., Washington 6, D. C. Ask for free publication direct from issuing organizations.

THE ABC OF ACID-BASE CHEMISTRY: The Elements of Physiological Blood-Gas Chemistry for Medical Students and Physicians—Horace W. Davenport—*University of Chicago Press*, 3rd ed., 86 p., illus., paper, \$2.00 A guide book brought up-to-date.

AETIOS OF AMIDA: The Gynaecology and Obstetrics of the VIth Century, A.D.—James V. Ricci, Translator—Blakiston, 215 p., \$7.00. Dr. Ricci has translated the Latin version by Cornarius of the last chapter in the encyclopedia of medicine on obstetrics and diseases of women written originally by Aetios of Amida, Court physician to Justinian I, Emperor of Byzantium.

The American Red Cross: A History—Foster Rhea Dulles—Harper, 554 p., \$5.00. The general history of the American Red Cross covering operations during the past seventy years.

BIRD NOTES FROM BARRO COLORADO ISLAND, CANAL ZONE—Josselyn Van Tyne—University of Michigan Press, 12 p., illus., paper, 25 cents.

BIRD's-EYE VIEW OF THE PUEBLOS—Stanley A. Stubbs—University of Oklahoma Press, 122 p., illus., \$3.00. A guide to the Indian villages of New Mexico and Arizona, with aerial photographs and scale drawings.

CANADA GEESE OF THE MISSISSIPPI FLYWAY:
With Special Reference to an Illinois Flock—
Harold C. Hanson and Robert H. Smith—
Natural History Survey Division, approx.
143 p., illus., paper, free upon request to publisher, Urbana, Illinois. A report of a study made of a flock of Canada geese wintering in Alexander County, Illinois.

THE CHILD WHO NEVER GREW—Pearl S. Buck— Day, 62 p., \$1.00. A mother's account of the problems in rearing her mentally retarded child.

CLASSICAL MECHANICS—Herbert Goldstein— Addison-Wesley, 399 p., illus., \$6.50. A text evolving from a course of lectures on classical mechanics given by author at Harvard University. Primarily designed for a graduate physics course.

CONTROLLED ACCESS EXPRESSWAYS IN URBAN AREAS: A Symposium—Committee on Controlled Access Expressways in Urban Areas—Highway Research Board, 41 p., illus., 60 cents. A study of the many problems involved in relieving city traffic congestion by this method.

THE EFFECTS OF ATOMIC WEAPONS—Samuel Glasstone, Executive Editor—Combat Forces, 456 p., illus., \$3.00. A cloth bound edition of a handbook identical with the original edition published by the Government Printing Office (See SNL, Aug. 19).

THE FATIGUE STRENGTH OF VARIOUS TYPES OF BUTT WELDS CONNECTING STEEL PLATES—Wilbur M. Wilson, William H. Munse and I. Sterling Snyder—University of Illinois, 60 p., illus., 50 cents. The results of numerous tests conducted by the Engineering Experiment Station.

Fertilizers—Food and Agriculture Organization of the United Nations, 24 p., illus., paper, 25 cents. A commodity report on the use of fertilizers throughout the world.

HIGH-FIDELITY TECHNIQUES—James R. Langham—Radcraft, 112 p., illus., paper, \$1.00. A guide for amateur audio-engineers.

How to Save \$1000 a Year at Home and Have Fun Doing It—Margaret Gaddis—Cummings Enterprises, 96 p., illus., paper, \$1.00. Various helpful hints and suggestions on saving money for those with modest incomes

IMPACT OF SCIENCE ON SOCIETY, Vol. I, No. I— UNESCO (Paris), quarterly, 33 p., 50 cents per year for the first year, \$1.00 for the second year, single copy 25 cents. A quarterly bulletin devoted to abstracts in the field of the social and international implications of science.

INPUT IMPEDANCE OF A SLOTTED CYLINDER ANTENNA—Charles A. Holt—University of Illinois, 50 p., illus., paper, 40 cents. A report from the Engineering Experiment Station on the use of the slot-cylinder antenna for frequency-modulated broadcasting and television.

Lectures on Classical Differential Geometry—Dirk J. Struik—Addison-Wesley, 221 p., illus., \$6.00. This book has developed from a one-term course given by the author for upperclassmen and graduate students at the Massachusetts Institute of Technology.

LECTURES ON FOUNDATION ENGINEERING GIVEN AT THE UNIVERSITY OF ILLINOIS, 1941-1942—A. E. Cummings—University of Illinois, 142 p., illus., paper, \$1.00.

LIQUID-METALS HANDBOOK: A Guide to the Use of Liquid Metals as Heat-Transfer Media—Richard N. Lyon, Editor-in-Chief—Gov't. Printing Office, 188 p., illus., paper, \$1.25. A reference book on liquid metals sponsored by the Committee on Basic Properties of Liquid Metals, Office of Naval Research in collaboration with the Atomic Energy Commission and the Bureau of Ships.

LOOKING AT SCIENTIFIC RESEARCH IN MELLON INSTITUTE 1949-1950—E. R. Weidlein, Director—Mellon Institute of Industrial Research, 48 p., illus., paper, free upon request to publisher, Univ. of Pittsburgh, Pittsburgh 13, Pa. The 37th annual report discusses present happenings and future goals of the Mellon Institute.

Moments in Two-Way Concrete Floor Slabs
—Chester P. Siess and Nathan M. Newmark
—University of Illinois, 124 p., illus., paper,
60 cents. A report of an investigation conducted by the Engineering Experiment Station.

NEIGHBORS IN ACTION: A Manual for Local Leaders in Intergroup Relations—Rachel Davis DuBois—Harper, 294 p., \$3.00. A report growing out of a project in intergroup relations carried on in one of New York City's most culturally mixed neighborhoods.

New Handbook of the Heavens—Hubert J. Bernhard, Dorothy A. Bennett and Hugh S. Rice—New American Library, 239 p., illus., paper, 35 cents. A guide to the stars for the amateur. Cloth bound edition was originally published by McGraw-Hill.

Nuclear Physics: A Textbook—Francis Bitter— Addison-Wesley, 200 p., illus., \$.50. A textbook intended for students who have had a course in atomic theory in addition to the usual introductory physics course.

Owls—Herbert S. Zim—Morrow, approx. 62 p.. illus., \$2.00. Discusses the owl and his many remarkable traits. Written for juveniles with excellent illustrations by James Gordon Irving.

THE PEOPLE OF GREAT RUSSIA: A Psychological Study—Geoffrey Gorer and John Rickman—Chanticleer, 235 p., \$3.00. An attempt by an anthropologist to arrive at an understanding of these people based on a study of their cultural traditions and methods of child care and in part on anecdotal accounts by a rural physician who worked in Russia for the Friends' War Victims Relief Unit.

Principles and Practice of Spectrochemical Analysis—Norman H. Nachtrieb—McGraw-Hill, 324 p., illus., \$4.50. Covers chemical emission spectroscopy in the ultraviolet and visual regions of the spectrum. A college text.

PSYCHIATRY FOR SOCIAL WORKERS—Lawson G. Lowrey—Columbia University Press, 2nd ed., 385 p., \$4.50. A revised guide to aid social workers to recognize the symptoms of psychiatric disorders.

REVIEW OF LITERATURE ON DUSTS—J. J. Forbes, Sara J. Davenport and Genevieve G. Morgis— Gov't. Printing Office, U. S. Dept. of Interior Bull. No. 478, 333 p., illus., paper, 65 cents. Discussion of the incidence, effects, determination and control of dusts.

THE STORY OF A STANLEY STEAMER—George Woodbury—Norton, 256 p., illus., \$3.00 The "biography" of the last model of a Stanley Steamer made by the Stanley Brothers.

STRATEGY IN POKER, BUSINESS AND WAR—John McDonald—Norton, 128 p., \$2.50. The editor of "Fortune" applies the mathematical theory of games developed by the atomic scientist, John von Neumann and Oskar Morgenstern to such social situations as poker, super markets, and atomic warfare. Written in nonmathematical language for the person who wants to gain understanding of our daily life,

STUDIES OF HIGHWAY SKEW SLAB-BRIDGES WITH CURBS, Part II: Laboratory Research—Myron L. Gossard and others—University of Illinois, 79 p., illus., 45 cents. A report on laboratory tests conducted by the Engineering Experiment Station of four skew slab-bridge models of reinforced concrete.

Surgical Nursing—Eldridge L. Eliason, L. Kraefer Ferguson and Lillian A. Sholtis— Lippincott, 9th ed., 728 p., illus., \$4.00 The treatment of surgical diseases and the social, economic and public health aspects of these diseases are presented.

THE TREES OF PENNSYLVANIA—William Carey Grimm—Stackpole and Heck, 363 p., illus., \$5.00. A well-illustrated manual designed for the layman so that he might recognize trees native to this state, as well as most of the more common ones.

THE TSUNAMI OF APRIL I, 1946—F. P. Shepard, G. A. MacDonald and D. C. Cox—University of California Press, approx. 135 p., illus., paper, \$1.75. A report of the most disastrous attack of long period gravity ocean waves in the history of the Hawaiian Islands.

UNITED NATIONS INTERNATIONAL CONTROL OF ATOMIC ENERGY—General Assembly—United Nations (U. S. Distributor: Columbia University Press), 37 p., paper, 30 cents. Official records of the resolutions, reports and statements made in this fourth Session of the General Assembly.

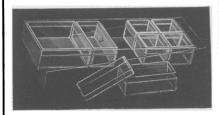
UNITED STATES ARMY COMBAT FORCES JOURNAL, Vol. I, No. 1—Joseph I. Greene, Ed.—Association of the United States Army, monthly, \$5.00 per year in U. S., \$6.00 forcign payable in advance, single copies 50 cents. A merger of the Infantry Journal and the Field Artillery Journal. The chief purpose of this new journal is to support and improve combat efficiency through discussion and suggestion.

UNITED STATES GOVERNMENT ORGANIZATION MANUAL 1950-51—Federal Register Division—Gov't. Printing Office, 657 p., illus., paper, \$1.00. Describes the agencies in the legislative, judicial and executive branches and various international organizations. Revised as of July 1, 1950.

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