(1) atomic bomb

The ACD: 1. A bomb whose potency is derived from nuclear fission of atoms of fissionable material, with consequent conversion of part of their mass into energy. 2. A bomb whose explosive force comes from a chain reaction based on nuclear fission in U-235 or in plutonium. It was first used militarily on Hiroshima, Japan (August 6, 1945). The explosion of such a bomb is extremely violent and is attended by great heat, a brilliant light, and strong gamma-ray radiation.

WNCD: A bomb whose violent explosive power is due to the sudden release of atomic energy. The release results from the splitting, or fission, of heavy nuclei (plutonium, uranium) by bombardment with particles (neutrons).

(2) Geiger counter

The ACD: An instrument for detecting and counting ionizing particles, consisting of a tube which conducts electricity when the gas within is ionized by such a particle. It is used in measuring the degree of radio-activity in an area left by the explosion of an atom bomb, in investigations of cosmic rays, etc.

WNCD: [After Hans *Geiger* (b. 1882), German physicist.] *Physics.* A thin-walled metallic cylindrical tube with a needle-like electrode projecting within, which detects the passage through its walls of every ionizing particle, such as a cosmic-ray particle, by the momentary current set up on ionization of the contained gas. A similar sensitive counting tube, the *Geiger-Müller counter* . . . containing a slender axial wire, is used for detecting radioactivity and making quantitative measurements.

(3) pile

The ACD: 7. *Nuclear Physics.* A latticework of uranium and various moderating substances used to produce plutonium in the original harnessing of atomic energy. It is essentially a means of controlling the nuclear chain reaction.

WNCD: 5. *Physics & Chem.* An arrangement of fissionable material, with a moderator (as carbon or heavy water, for slowing down neutrons) and regulating devices, designed for producing and controlling a chain reaction, as for making plutonium from uranium or producing atomic energy, by the action of neutrons;—called specif. *atomic pile, chain-reacting pile.*

The ACD usually gives the shorter definition, but the longer definition in *WNCD* I found to be more informative without any sacrifice of clearness.

E. N. LOCKARD

Chicago City Junior College
Argonne National Laboratory

Scientific Book Register

Contributions to American Anthropology and History, Vol. X, including "The Maya Chronicles"; "Guide to the Codex Perez"; "The Pendleton Ruin, Hidalgo County, New Mexico"; and "The Prophecies for the Maya Tuns or Years in the Books of Chilam Balam of Tizimin and Mani." Washington, D. C.: Carnegie Institution of Washington, 1949. 186 pp. $4.00 paper; $4.50 cloth.

Author's Guide for Preparing Manuscript and Handling Proof. New York: John Wiley; London: Chapman & Hall, 1950. 80 pp. $2.00.

Recent Advances in Radio Receivers. L. A. Moxon. New York: Cambridge Univ. Press, 1949. 183 pp. $3.75.

Progress in Biochemistry: A Report on Biochemical Problems and on Biochemical Research since 1939. Felix Haurowitz. Basel, Switzerland: S. Karger; New York: Interscience, 1950. 405 pp. $7.50.

Psychical Physics: A Scientific Analysis of Dowsing, Radiesthesia and Kindred Divining Phenomena. S. W. Tromp. New York: Elsevier Publ., 1949. 534 pp. $8.00.

Flora of Guatemala. Paul C. Standley and Julian A. Steyermark. Chicago: Chicago Natural History Museum, 1949. 440 pp. $3.50.

Development of Aircraft Engines and Fuels: Two Studies of Relations between Government and Industry. Robert Schlaifer and S. D. Heron. Boston, Mass.: Division of Research, Harvard Business School, 1950. 754 pp. $5.75.

Measuring Our Universe: From the Inner Atom to Outer Space. Oliver Justin Lee. New York: Ronald Press, 1950. 170 pp. $3.00.

Engineering Mechanics. Archie Higdon and William B. Stiles. New York: Prentice-Hall, 1949. 505 pp. $5.00.

A Catalogue of the Hesperiidae from Europe, Asia and Australia in the British Museum. W. H. Evans. London S.W.7: British Museum of Natural History, 1949. 502 pp.; 53 plates.

Alexander McAdie: Scientist and Writer. Comp. by Mary R. B. McAdie. Charlottesville, Va.: Mary R. B. McAdie, 1949. 421 pp.

Fundamentals of Radio-Valve Technique: An Introduction to the Physical Fundamentals, Properties, Designs and Applications of Radio-Receiver and Power-Amplifier Valves Covering the Technical Development Reached up to December 1947. J. Deketh. Eindhoven, Holland: Philips' Technical Library; New York: Elsevier, 1949. 557 pp.

Partition Chromatography. Biochemical Society Symposia No. 3. R. T. Williams, Ed. London N.W.1: Cambridge Univ. Press, 1949. 103 pp. 6/– net.

Organic Chemistry in Pharmacy. Charles O. Wilson and Ole Gisvold, Eds. Philadelphia-London: J. B. Lippincott, 1949. 622 pp. $9.00.

Trilinear Chart of Nuclear Species. William H. Sullivan. London: Chapman & Hall; New York: John Wiley, 1949. Illustrated. $2.50.

Biologie der Goethezeit. Adolf Meyer-Abich, Ed. Stuttgart, Germany: Hippokrates-Verlag Marquardt; Waltham, Mass.: Chronica Botanica, 1949. 302 pp. $5.50.

Topology of Manifolds. Raymond Louis Wilder. New York 27: American Mathematical Society, 1949. 402 pp. $7.00.

Quinidine in Disorders of the Heart. Harry Gold. New York: Paul B. Hoeber, Harper, 1950. 115 pp. $2.00.

Some Early Tools of American Science: An Account of the Early Scientific Instruments and Mineralogical and Biological Collections in Harvard University. I. Bernard Cohen. Cambridge, Mass.: Harvard Univ. Press, 1950. 201 pp. $4.75.