

# Books of the Week

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**CHILDREN OF THE PEOPLE**—Dorothea Leighton and Clyde Kluckhohn—*Harvard Univ. Press*, 277 p., illus., \$4.50. This comprehensive study of Navaho personality and psychology, with its detailed consideration of the manner in which "The People" bring up their children, should be of interest to anthropologists, teachers, psychiatrists, psychologists and educators. It is a joint project of the University of Chicago and the U. S. Office of Indian Affairs.

**HEARING AIDS: An Experimental Study of Design Objectives**—Hallowell Davis, et al.—*Harvard Univ. Press*, 197 p., paper, \$2.00. Initiated under contract between the Office of Scientific Research and Development and Harvard University, this survey describes the experiments, tests and results upon which an ideal master hearing aid for the majority of deaf should be based.

**HIGHWAY RESEARCH BOARD: Proceedings of the Twenty-Sixth Annual Meeting**—Roy W. Crum, Fred Burggraf, and William N. Carey, Jr.—*Div. of Engring and Ind. Res., Nat. Res. Council*, 618 p., illus., \$7.50. Report includes papers on economics, finance and administration; design; materials and construction; maintenance; traffic and operations; and soils investigation.

**THE LIFE AND WORK OF COPERNICUS THE ASTRONOMER**—Angus Armitage—*Schuman*. This book has been chosen as the first of the fall series of Science Service Book Selections. See page 336 for further details.

**NATIONAL PAINT DICTIONARY**—Jeffrey R. Stewart—*Stewart Research Laboratory*, 3rd ed., 704 p., illus., \$7.50. Detailed definitions, with illustrations, which should be helpful to the paint technologist or the student.

**OUR CHILDREN ARE CHEATED**—Benjamin Fine—*Holt*, 244 p., \$3.00. The author presents the results of a nation-wide sur-

vey of educational standards in the public school systems, analyzes the problems which constitute a crisis in education, and assesses the importance of this crisis to a democratic society.

**PSYCHIATRY FOR EVERYMAN**—J. A. C. Brown—*Philosophical Lib.*, 247 p., \$3.00.

## NUCLEAR PHYSICS

# Soviet Atom-Bomb Test?

➤ ONLY really likely detail in the Armistice Day report of a Soviet atom-bomb test is the locale—Irkutsk. This Siberian city, near the southern end of Lake Baikal, is in the midst of wild inaccessible country that would be just about as good as our own New Mexico desert for the technical purposes of a major explosion test. It would be even better from a security viewpoint, for there is hardly a place in the world that unauthorized visitors would find it harder to reach. The area for hundreds of miles around is completely under the control of the USSR, and transportation, except over the Trans-Siberian Railway, is limited to caravan routes over the Mongolian deserts and through the mountains.

For the rest, the whole business looks like either a deliberately "planted" story timed for maximum political effect to offset the convening of the special session of Congress in this country, or (more likely) the kind of "think-piece" that used to be cooked up by frustrated newspapermen in such wartime rumor factories as Stockholm and Zurich.

The 13-pound weight given for the bomb would be correct only if the critical mass of the U-235 or plutonium used were near the minimum of four and two-fifths pounds first suggested in the Smyth report. Something must be allowed for the weight of the bomb casing—and 13 pounds is just about the weight of a common 75-millimeter shell.

A later, more closely calculated critical weight, from a high British scientific source, puts the minimum between 22 and 66 pounds. This is too high for the reported Soviet bomb.

The 21-mile distance at which the explosion could be heard sounds a lot more like the audible range for a very ordinary missile such as a 1000-pound bomb or a 16-inch naval shell.

Intended for popular use, this book is a well-written history of psychiatry, including exposition of the theories of Freud, Jung, Adler, and others, as well as some discussion of psychiatric techniques.

**REFERENCE BOOKS: A Brief Guide for Students and Other Users of the Library**—Mary Neill Barton—*Enoch Pratt Free Library*, 94 p., illus., paper, 80 cents. A convenient handbook of suggestions to the library user on how to utilize a number of the more popular reference materials.

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The Able-day burst at Bikini was a loud though somewhat dull roar at the 19-mile distance at which the observation ships were stationed; had there been anyone at a hundred-mile distance he probably would still have heard it. The first American test, in the Southwestern desert, was reported to be audible 200 miles away.

Nothing is said in the news story by the unidentifiable "John Griggs" about the brighter-than-daylight flash and the fast-climbing incandescent cloud which have been most outstanding features of all four air-bursts of atom bombs thus far authentically reported.

Detection at a distance of any atom-bomb explosion is most likely through very sensitive instruments that record fluctuations in the number of electrically charged particles in the atmosphere. If American scientists with our armed forces have such instruments set on mountain-tops in Japan or the Aleutians they may possibly have picked up invisible but still radiologically active wisps of an atom bomb as far off as Lake Baikal. Detection by instruments of known types on the American mainland is quite improbable. Claims of such detection after the first Bikini explosion are now regarded somewhat skeptically by most American physicists. Of course, if American observers did pick up something in Japan or the Aleutians, the records are not likely to be made public.

The Serge Vavilov who is reported to be heading Soviet atomic research apparently is the same as S. I. Vavilov, who has been president of the Academy of Sciences of the USSR since July, 1946. The Very Rev. Hewlett Johnson, "Red Dean" of Canterbury, in a new book on Soviet Russia, quotes him as promising, in his inaugural address, that "Special attention will be paid to atomic energy and cosmic rays."

*Science News Letter, November 22, 1947*

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