

## • Books of the Week •

ABOUT FOSTER CHILDREN—N. Y. City Committee on Mental Hygiene and the Bureau of Child Hygiene of the N. Y. City Department of Health—TO FOSTER PARENTS—Same Author—*New York City Committee on Mental Hygiene*, paper, 25c each.

THE ART OF RESUSCITATION—Paluel J. Flagg—*Reinhold*, 453 p., illus., \$5.

THE AVIATION DICTIONARY FOR BOYS AND GIRLS—Leslie E. Neville, ed.—*McGraw*, 192 p., illus., \$2.

CORNELL RED BOOK OF MARINE ENGINEERING, QUESTIONS AND ANSWERS—W. B. Paterson, ed.—*Cornell Maritime*, 492 p., illus., \$3.50.

FUNDAMENTALS OF BACTERIOLOGY—Martin Frobisher—*Saunders*, 826 p., illus., \$4, 3rd ed.

HURRICANES, THEIR NATURE AND HISTORY—Ivan Ray Tannehill—*Princeton Univ. Press*, 268 p., illus., \$3, 5th ed.

INTRODUCTORY AERONAUTICS—Clarence A. Hammond, Jr., and Harry H. Gilbert—*Oxford Book Co.*, 275 p., paper, illus., \$1. (Oxford Technical Handbooks.)

ISLAND VICTORY, THE BATTLE OF KWAJALEIN ATOLL—S. L. A. Marshall—*Infantry Journal*, 213 p., paper, illus., 25c.

A MAZE OF AMAZING FACTS—Daniel Sargunas—*Meador*, 204 p., \$2.

THE NATURAL HISTORY AND BEHAVIOR OF THE WESTERN CHIPMUNK AND THE MANTLED GROUND SQU'RRREL—Kenneth Gordon—*Oregon State College*, 104 p., paper, illus., 75c (Oregon State Monographs, Studies in Zoology, No. 5, 1943).

PSYCHOLOGY—Floyd C. Dockeray—*Prentice-Hall, Inc.*, 504 p., illus., \$3.

THE THEORY OF RESONANCE AND ITS APPLICATION TO ORGANIC CHEMISTRY—George Willard Wheland—*Wiley*, 316 p., illus., \$4.50.

THE VELOCITY OF LIGHT—N. Ernest Dorsey—*Am. Philosophical Soc.*, 110 p., paper, illus., \$2.25 (Transactions, new series, vol. 34, pt. 1).

*Science News Letter, December 2, 1944*

### METALLURGY

## Tablet Manganese Prepared With No Melting Necessary

➤ SEVERAL metallurgical inventions of interest figure among recently issued patents. One is on a method of preparing manganese in tablet form without melting it. It is covered by patent 2,361,925, obtained by H. A. Bassert of Washington, Conn., and J. C. Hartley of Norwalk, Conn., assignors to Minerals and Metals Corporation.

The manganese, freshly reduced from the ore under a non-oxidizing atmosphere, is compressed into tablets which are given an oxygen-excluding coating of ammonium chloride or other suitable chemical. In this state the manganese maintains its maximum value for steel-making purposes until ready for use.

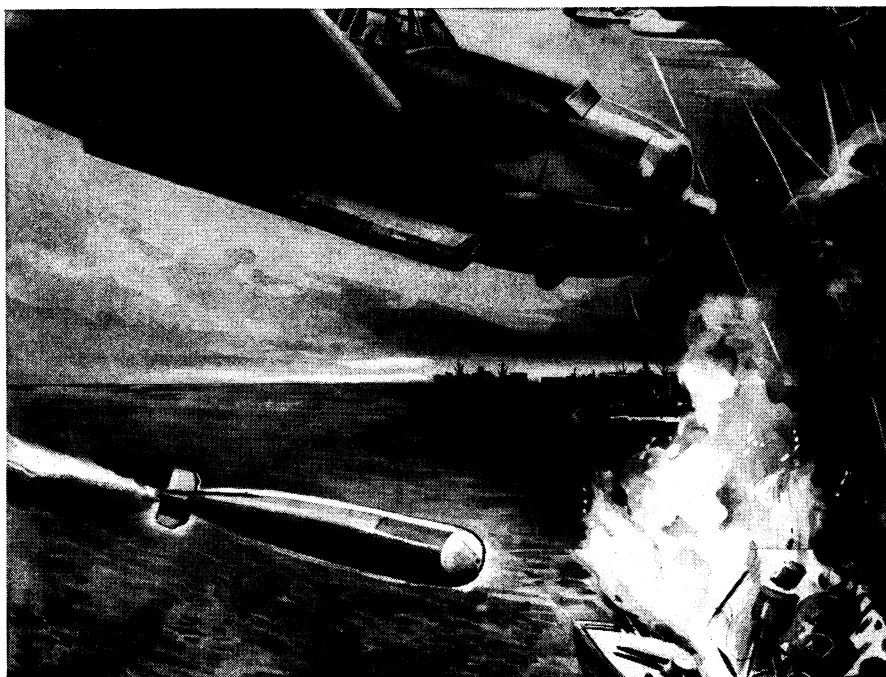
Another interesting patent in the field of metallurgical chemistry is No. 2,362,202, granted to John O. Hay of Cleveland Heights, Ohio, and assigned by him to the Harshaw Chemical Company of Elyria, Ohio. It is a process for recovering copper from alloy scrap containing zinc or other metals. The scrap is immersed in a hot aqueous solution containing sulfides or chlorides and finely divided sulfur. Copper sulfate is formed and precipitated, salts of the other metals remaining in solution.

A third metallurgical process is cov-

ered by patent 2,362,046, issued to F. R. Bonte of Canton, Ohio, assignor to the Timken Roller Bearing Company. It is on an alloy steel containing from 0.5% to 2% of carbon in the form of graphite, with additions of molybdenum, manganese, silicon and titanium.

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An airplane gunner knows that his bullets never go where he points his gun; they travel both in the direction of the target and also forward at the same speed as the plane.



## Precision Brings Pacific Victories

Aimed with deadly precision, aerial torpedoes have been a decisive factor in Pacific victories.

Early in the war, U. S. Navy Torpedo Squadrons launched their "tin fish" by diving in dangerously close to their target. The risks were great—but they sank plenty of Jap ships.

The problem in this type of attack is to estimate the distance to the target and the speed of the target. He must aim—not where the ship is, but where it will be when the torpedoe strikes.

To solve this problem, he uses a Torpedo Director in which an enemy ship can be centered easily and quickly.

The Torpedo Director is one of many scientific optical instruments being produced by Spencer Lens Company to speed Allied victory.



**Spencer** LENS COMPANY  
BUFFALO, NEW YORK  
SCIENTIFIC INSTRUMENT DIVISION OF  
AMERICAN OPTICAL COMPANY