Books of the Week

TO SERVE YOU: To get these books, send us a check or money order to cover retail price. For free publications send 10 cents to cover handling. Address Book Dept., SCIENCE NEWS LETTER, 1719 N St., N. W., Washington 6, D. C.

DENTAL CARIES—Bernard Gottlieb—*Lea and Febiger,* 262 p., illus., $10. A thorough discussion of the pathology of dental caries, with excellent photomicrographs.

ELECTRO-PLATING—Samuel Field and A. Dudley Weill—*Pitman,* 5th ed., 483 p., illus., $5. A survey of modern practise in electrodeposition including the analysis of plating solutions.

ESSENTIALS OF APPLIED PHYSICS—Royal M. Frye—*Prentice-Hall,* 322 p., illus., $4.35. A textbook for a concise course which must cover topics not ordinarily found in a preparatory course. The latest concepts in physics are discussed; an appendix explains the minimum of mathematics necessary for a clear understanding of physics.

FOOD REGULATION AND COMPLIANCE—Arthur D. Herrick—*Revere,* Vol. II, 655 p., $10. This volume discusses fully the subject of food adulteration under the law, administrative proceedings and enforcement and defense actions.

HOME-BUILT PHOTO EQUIPMENT—Walter E. Burton—*Ziff-Davis,* Little Technical Library, 156 p., illus., 95 cents. Practical suggestion of things to make and how to make them.

HUMAN BREEDING AND SURVIVAL—Guy Irving Burch and Elmer Pendell—*Penguin,* 138 p., 25 cents. A discussion of the field of population cause and effect and its ultimate effect on world peace.

INORGANIC SYNTHESES Vol II—W. Conrad Fernlius, ed.—*McGraw-Hill,* 293 p., $4. Giving detailed and tested methods for the synthesis of inorganic substances, this volume has an index which is cumulative for Vol. I. Chapters are numbered according to the groupings in the Mendeleev periodic table and an appendix on nomenclature is included.

THE METAPHYSICAL SOCIETY: Victorian Minds in Crisis 1869-1880—Alan Willard Brown—*Columbia Univ.,* 372 p., $4.50. This history of a little-known and vaguely understood society includes a study of the conflicts between religion and science in that period.

NURSE-PATIENT RELATIONSHIPS IN PSYCHIATRY—Helena Willis Render—*McGraw-Hill,* 346 p., $3. Approached from the point of view of human relationships, this text gives an understanding of the psychiatric aspects of nursing care.

PHENOPLASTS: Their Structure, Properties, and Chemical Technology, High Polymers, Vol. VII—T. S. Carswell—*Interscience,* 267 p., illus., $5.50. A compilation from the literature of the past 10 years on the theories and findings concerning the techniques of working with the phenoplasts and their chemical and physical properties.

RADIO QUESTIONS AND ANSWERS—Editors of Radio-Craft—*Radcraft,* No. 31, 64 p., illus., paper, 50 cents.

STYLE RULE—S. Stephenson Smith—*Wordsmith,* 23 p., spiral, $1. A ready-reference handbook for writers, students, stenographers and all who write, covering grammar, sentence rhetoric, word usage, punctuation, uses of sources, and copy editing.

Science News Letter, July 19, 1947

TELEGRAPHY

Automatic Relay System

➤ FUTURE telegrams from surrounding areas passing through the Western Union central station in Philadelphia for transmission to distant points will encounter no delay, thanks to a new push-button system cut into the service recently.

This Philadelphia center will serve all telegrams to and from Pennsylvania, New Jersey and the area east of the Delaware river. By merely pressing buttons, telegrams will be automatically transmitted to their destinations.

In the system being replaced, telegrams received are rushed from receiving instruments to sending keyboards by messengers on roller skates. At the typewriter-like keyboards, the messages are put on the wire.

With the new installation, each message will be typed only once. That will be at its point of origin. It will be received in the Philadelphia relaying station by a telegraph device known as a printer perforator, which simultaneously prints the message and punches combinations of holes in a paper tape.

In the central office, a clerk will read the destination on the tape as the message begins to come in. He then quickly presses a button bearing the name of the destination. The pressing of the button will cause the perforated tape to run through an automatic transmitter which will flash the electric signals to the desired terminal. There the signals will be automatically received in printed form ready for delivery.

There will be other high-speed centers at St. Louis, Richmond, Atlanta, Dallas and Oakland, Calif. The entire $2,000,000 installation in Philadelphia, one circuit of which is now ready for use, will be ready for other circuits within a few weeks. The system gives a capacity three times greater than that of the facilities being replaced.

Science News Letter, July 19, 1947

CHEMISTRY

New Insulant Gives More Room in Refrigerators

➤ MORE ROOM in refrigerators is becoming possible because a new insulating material permits thinner walls without loss of efficiency. The new insulant might be described as sand filled with air bubbles. Actually it consists of six per cent silica and 94% air.

It is made by treating sodium silicate with sulfuric acid. This makes a jelly consisting of a microscopically foam-like mesh of silica walls imprisoning droplets of water. The water is removed by heat and pressure, leaving only the silica cells filled with air. This kind of a structure is practically ideal from the heat-insulation viewpoint.

The new product was originated by Dr. S. S. Kistler of the University of Illinois, and will be manufactured by the Monsanto Chemical Company under the trade-name Santocel.

Science News Letter, July 19, 1947

to smooth the way for

DIABETICS

"Diabetic Care in Pictures" was designed to smooth the way so that diabetes and its treatment might be completely understood. The result of more than 25 years of questioning in a nationally-known clinic—and the *tested* answer to all those questions. Simply written and lavishly illustrated by charts, photographs and drawings, it tells about the diet, measurement and injection of insulin, insulin reactions, acidosis and diabetic coma, blood and urine tests and necessary body care. The coupon below will bring a copy immediately.

by Helen Rosenthal, B.S., Frances Stern, M.A. and Joseph Rosenthal, M. D.

$2.50

DIABETIC CARE IN PICTURES

150 PAGES—137 ORIGINAL ILLUSTRATIONS

J. B. LIPPINCOTT COMPANY
East Washington Square, Philadelphia 5, Pa.

I enclose $2.50. Please send me "Diabetic Care in Pictures."

NAME.....

STREET.....

CITY, ZONE, STATE.....

SNL (10 day return privilege guarantee)

Science Service, Inc. is collaborating with JSTOR to digitize, preserve, and extend access to *The Science News-Letter.* www.jstor.org