

illustrations)—almost the world is his parish, for he is also patron of scholars, school-masters, sailors, butchers, as well as of perfumers and pharmacists. It is of interest that he was adopted as Patron by the Master Apothecaries of Paris.

Saint Roche, born in Montpellier in 1295. His ability to heal the plague from which he himself was cured, when neither physician nor apothecary knew even what to prescribe, naturally caused them to return to him as their Patron. He is shown with a plague spot on his knee, whose cure was assisted by an angel, and whose food, during his banishment on account of the plague, was brought by a dog—hence the picture always of a dog bringing a cake of bread in his mouth. Celebrated on the 16th August.

Saint Emilien, Vth Century, was a physician who suffered tortures during the persecution of the Vandals, under King Huneric. Saint's Day 6th December.

Other Saints were chosen according to special local circumstances, sometimes connected with the Church where the corporation or confraternity of apothecaries or pharmacists held its annual service, and whose name was inscribed on the banner of the Guild—one of the banners illustrated in Bouvet's "Histoire de la pharmacie en France" is that of the Lille Apothecaries whose choice was Saint Madeleine.

Had the Centenary of the Pharmaceutical Society of Great Britain (April 1941) occurred in an earlier century, no doubt at the

commemorative service the banners of the Society, emblazoned with the pictures of St. Cosmos and St. Damian, at least, would have been carried in procession round the church in recognition of their patronage of the profession of pharmacy.

I wish to acknowledge the facilities afforded by the Director of the Wellcome Historical Medical Museum (Dr. S. H. Daukes) and also the assistance given in the preparation of this paper by Mr. P. Johnston-Saint, the Conservator who, having visited some of the shrines, has been able to give first-hand information about them.

REFERENCES

- (1) Godlee, "Lord Lister," Oxford, 1924, p. 62.
- (2) Authority quoted by H. Peters is the "Holy Lives" published by Martin Hupfuf, Strassburg, 1513.
- (3) Wootton, A. C., "Chronicles of Pharmacy," London, 1910.
- (4) Peters, H., "Pictorial History of Ancient Pharmacy" (translated by W. Netter), Chicago, 1889.
- (5) De Riviera, Sanchez, "Boletin de Medicina," No. 51, Madrid, 1935.
- (6) "Bulletin d'Histoire de Pharmacie," III, Paris, 1932.
- (7) Peters, H., "Pictorial History of Ancient Pharmacy," *loc. cit.*

Book Reviews

Semimicro Qualitative Analysis, by ARTHUR R. MIDDLETON, Ph.D., Professor of Inorganic Chemistry, Purdue University, and JOHN W. WILLARD, B.S. xi + 446 pp., 7 figs., 23 tables, 14.6 x 22.7 cm. 1939. Prentice-Hall, Inc., 70 Fifth Avenue, New York, New York. Price, \$3.50.

This is a laboratory manual combining theory and laboratory work under a single cover. The methods included in the text are the result of a six-year trial in large student classes. According to the authors, the methods described have given exceptionally good results. The advantages of using semimicro quantities for qualitative analyses are stressed.

This book features two ideas of qualitative analysis which have hitherto not appeared in any text. Anions are determined qualitatively by elimination; and analysis of cation group III is performed without removal of arsenate and phosphate, and of cation group IV without the use of the rather unsatisfactory reagent, ammonium carbonate. Much time

is saved in the laboratory by the introduction of these new methods.

The book is divided into two parts: Part I deals with the theory of chemistry and Part II presents the laboratory methods.

The section on theory explains the use of units in chemical calculation and the application of logarithms to simplify calculations. Other subjects treated in succession are application of the gas laws, structure of matter, laws of equilibrium, homogeneous equilibrium in aqueous solution, heterogeneous equilibrium, hydrolysis, equilibrium of complex ions, and equilibrium in redox reactions (reduction, oxidation and potential).

The section on laboratory work is divided into twelve chapters: namely, semimicro technique, properties and reactions of the cations, preparation for the laboratory work, introductory study of the cations, systematic analysis of cations, introduction to the analysis of anions, properties and reactions of

the anions, introductory study of anions, systematic analysis of anions, systematic qualitative analysis, and analysis of non-ferrous alloys.—EMERSON C. BEELER.

Temperature, Its Measurement and Control in Science and Industry. xii + 1362 pp., 550 figs. 1941. New York: Reinhold Publishing Corporation. Price, \$11.00.

This book is a collection of 126 papers on temperature measurement and control, originally presented at a symposium held under the auspices of the American Institute of Physics and cooperating scientific and technical societies, in November 1939. The papers cover problems in the application of temperature measurement and control in a wide variety of fields, including physics, chemistry, engineering, metallurgy, medicine, biology and their various specialized branches. The work is, in ef-

fect, a comprehensive treatise on temperature, including both the practical and theoretical sides of the subject. An appendix of 30 pages of useful thermometric data is included, and also a well-prepared subject index.

The papers are arranged in chapters dealing with the following topics: basis of temperature scales; precision thermometry, including resistance, thermoelectric and liquid in glass; teaching of thermometry; temperature in geology and meteorology; temperature in biology; temperature and its regulation in man; devices and methods for automatic temperature control; special miscellaneous applications and methods, very low and very high temperatures; general engineering, including applications in air conditioning, refrigeration, steam engineering and aircraft; metallurgy and ceramics; oil industries; optical and radiation pyrometry; thermometric metals and alloys, mainly calibration and life data.—M. S. VAN DUSEN.

Books Received

To January 1, 1942

(Continued from January Issue)

- HERMAN C. NOLEN and HAROLD H. MAYNARD, *Drug Store Management*. McGraw-Hill Book Company, Inc., New York, N. Y., 1941. 570 pp. \$4.00.
- HERMAN PRINZ and U. GARFIELD RICKERT, *Pharmacology and Dental Therapeutics*. Eighth edition, revised by EDWARD C. DOBBS. The C. V. Mosby Company, St. Louis, Mo., 1941. 507 pp. \$6.50.
- HENRY E. SIGERIST, *Medicine and Human Welfare*. Yale University Press, New Haven, Conn., 1941. 148 pp. \$2.50.
- CLAYTON S. SMITH and HELEN L. WIKOFF, *Materia Medica and Pharmacology*, an Introductory Text. College Book Company, Columbus, Ohio, 1941. 334 pp.
- T. B. SMITH, *Analytical Processes, a Physico-Chemical Interpretation*. Second edition. Longmans, Green and Company, Inc., 55 Fifth Avenue, New York, N. Y., 1940. 470 pp. \$5.00.
- WESLEY W. SPINK, *Sulfanilamide and Related Compounds in General Practice*. The Year Book Publishers, Inc., 304 South Dearborn Street, Chicago, Ill., 1941. 256 pp.
- HAROLD H. STRAIN, *Chromatographic Adsorption Analysis*. Interscience Publishers, Inc., 215 Fourth Avenue, New York, N. Y., 1942. 222 pp. \$3.75.
- JOHN STRONG and Collaborators, *Procedures in Experimental Physics*. Prentice-Hall, Inc., New York, N. Y., 1938. 642 pp. \$6.70.
- Temperature, Its Measurement and Control in Science and Industry*. By the American Institute of Physics, the National Bureau of Standards and the National Research Council. Reinhold Publishing Corporation, 330 West Forty-second Street, New York, N. Y., 1941. 1362 pp. \$11.00.
- CHARLES ALLEN THOMAS and Collaborators, *Anhydrous Aluminum Chloride in Organic Chemistry*. American Chemical Society Monograph Series. Reinhold Publishing Corporation, 330 West Forty-second Street, New York, N. Y., 1941. 972 pp. \$15.00.
- D. WRIGHT WILSON, *A Laboratory Manual of Physiological Chemistry*. The Williams and Wilkins Company, Baltimore, Md., 1941. 298 pp. \$2.50.
- A. G. WOODMAN, *Food Analysis, Typical Methods and the Interpretation of Results*. Fourth edition. McGraw-Hill Book Company, Inc., New York, N. Y., 1941. 607 pp. \$4.00.