## QUALITATIVE ANALYSIS

*Qualitative Analysis, A Brief Outline.* By H. N. HOLMES. vii + 52 pp. The Macmillan Company. 1945. $1.00.

DR. HOLMES'S little volume adds another to the long list of outlines on qualitative analysis which has grown into an eloquent plea for the return of qualitative to the field of analytical chemistry. In common with similar outlines, the procedure may operate satisfactorily on relatively concentrated solutions; at the same time, some of the confirmatory tests will yield positive results with many distilled water supplies. Notable examples: on page 3, dissolution of sample is accomplished by evaporating with concentrated HCl, a procedure nearly certain to volatilize trivalent arsenic; on page 5, $H_2S$ precipitation takes place in .3N acid, under conditions certainly not designed to precipitate quinquevalent arsenic; on page 13, dithizone is used as a confirmatory test for lead, a test so sensitive that lead would almost certainly be found in all unknowns.

In general, it can be said that the outline is not particularly better or worse than similar works in the field. Many instructors may find the brevity and conciseness to be advantageous.

FREDERICK R. DUKE

## A COUNTRY MEDICAL COLLEGE

*The Story of a Country Medical College.* By FREDERICK C. WAITE. 213 pp. 9 illustrations. Vermont Historical Society, Montpelier. 1945.

THE Medical College at Woodstock, Vt., was a proprietary school founded in 1826 which lived happily for thirty-six years. Dr. Waite describes its career from birth to death.

The school was founded by Dr. Joseph A. Gallup, of Stonington, Conn. It started unpretentiously in the Eagle Hotel facing the Woodstock Common; presently moved westward into a "commodious brick building in a very eligible situation" on the edge of the village; was twice married—to speak figuratively—once to the Waterville College of Maine and once to Middlebury College of Vermont; and since neither union proved satisfactory, ended its days in independent bachelordom as they were begun.

Dr. Waite gives a delightful description of Dr. Gallup and of how he came to establish a medical school, and shows how medical schools such as this filled a useful purpose for a time but were doomed to obsolescence as cities grew, as means of communication advanced and, about all, as the belief became established that clinical teaching at the bedside is an essential part of medical education.

Dr. Waite also has performed a remarkable feat in the way of biographical labor. He has made a complete and accurate record of every one who had anything to do with the school—trustees, students and faculty—including the peripatetic professors. As they wandered over the country from school to school they helped to lay enduring cornerstones on which medical education of the future was to grow; an account of any of them is valuable.

As the story of this small medical college unfolds, it makes good reading. The book deserves popularity.

REGINALD FITZ

## CLIMATE

*Climate and the Energy of Nations.* By S. F. MARKHAM. x + 236 pp. New York: Oxford University Press. 1944. $3.50.

THE first section of the book deals with the history of civilization and culture in relation to climate, which latter appears, in the author's opinion, to be the mightiest factor influencing human development.

First climatic changes within historical times are discussed and their eventual influence on man. The author, as a critical investigator, declines exaggerated estimates and must be commended for pointing out the progressive deterioration of the soil resulting from abuse and neglect. The discrimination between these processes and the effects of hypothetically assumed recent climatic changes is difficult. The average spatial distribution of climatic characteristics, *i.e.*, temperature and humidity, should yield the key. The author hints also at radiation, sunshine and wind, but makes little use of the available data because of the great complication, which arises if the number of factors, simultaneously considered, is increased. Speaking of radiation effects the author points to temperatures read from a thermometer, "when exposed to the rays of the midday sun." Such readings have, however, no scientific value. But this incorrectness is unimportant in view of the purpose of the book.

As the result of various bioclimatological investigations and of his own experience (gathered during widespread travels around the earth) the author concludes that "men work harder and more efficiently" when indoor temperatures are above 60° F and below 76° and relative humidities are between 40 per cent. and 70. The ideal outdoor climate is identically limited. Some allowance is made for clothing. In tropical regions the ideal temperature has to be somewhat lower on account of a special intensity of direct radiation. (Dubitable according to observations on Java, discussed by H. P. Berlage.) Altogether "early civilizations would have