as a surprise containing surprises, for it presents such a logical, forceful analysis of the outcome for other animals of the human population explosion around the world. He argues, on the one hand, for a few natives and man-set fires in wildlife reserves—to continue the evolutionary pressure to which wildlife and the vegetation have become adapted. On the other, he clearly wonders how a sanctuary, even as large as Kruger National Park (the size of Massachusetts or New Jersey), can be meaningful as an island of wilderness if there is no genetic interchange with kindred animals and plants from beyond its boundaries. How can the enclosed creatures continue their evolution in an unchanged direction, if they are confined in this way?

That Cowles' last visit to Natal was in 1953 does not date his book. We tramped over many of the same hillsides during July and August of 1959, and found the deterioration of the soil, the problems of management, the tensions between people over the future, all just a little more acute and desperate than is told in *Zulu Journal.* To Cowles' credit, he has underplayed the political background of the South African scene and focused more attention on the world-wide problems—the survival of wild animals, native plants, and primitive people in the face of unchecked increases in human population.

The book should be read carefully by all who are concerned with man's future—even his near future.

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Human Nutrition and Dietetics. Sir Stanley Davidson, A. P. Meiklejohn, and R. Passmore. William and Wilkins, Baltimore, Md., 1959. xii + 844 pp. Illus. $15.

Three Edinburgh men—Sir Stanley Davidson (professor of medicine), A. P. Meiklejohn (lecturer in nutrition), and R. Passmore (reader in physiology)—have banded together to produce the best textbook on nutrition presently available to the graduate student, the scientist, or the internist. The combination of their talents is unusual. Davidson, an excellent clinician, has made distinguished contributions to a number of fields in medical investigation. Meiklejohn, well known in this country as a clinician, has had extensive practical experience as consultant in nutrition for the United Nations Relief and Rehabilitation Administration. Passmore, a man with wide interests in the physiology of nutrition, served for many years in the Indian Medical Service, in particular at Coonoor.

This large volume (844 pp) is divided into six main sections: Physiology, Foods, Primary Nutritional Diseases, Nutritional Aspects and Dietetic Treatment of General Diseases, Public Health, and Diet and Physiological Stress. The first part deals with the more classical aspects of the biochemistry and physiology of nutrition, including the mechanism by which food intake is regulated. The references and illustrations are judiciously chosen, and in every respect the book meets the highest requirements for scholarship. That it does so without being unusually wordy is particularly well illustrated by chapter 7, "Alcohol," which in the space of only 2½ pages (five bibliographical references) manages to give a superb summary of present knowledge of the place of alcohol in nutrition.

My only reservation about the first part is that the authors could have provided a better discussion of the basis on which various sets of requirements or recommended allowances have been established.

The second part is particularly useful. It deals with the various types of foods into which, ultimately, nutrition is translated. There is a useful section on preserving, cooking, and wastage, as well as a section on food poisons.

The section on subnutrition and starvation, as well as that on obesity, could usefully have been amplified. These topics are dealt with in a fairly cursory manner and, particularly obesity, without too much originality. This is all the more surprising because few people in the world have had as much extensive firsthand experience with the problem of subnutrition as Meiklejohn and Passmore, and, for that matter, few people have written as well on the subject as Passmore. It is to be hoped that in the second edition this important subject will be discussed more fully. Similarly, obesity is a field to which both Passmore and Meiklejohn have contributed and continue to contribute. The emphasis placed on this subject in the teaching of present day nutrition should entitle it to a somewhat more detailed presentation than is accorded it in *Human Nutrition and Dietetics.*

The sections on nutritional deficiencies are good, and they are particularly well illustrated. Section 4, Nutritional Aspects and Dietetic Treatment of General Diseases, is excellent, though it may, perhaps, reflect British practices too much for literal application to American hospitals and institutions.

Part 5, on public health nutrition, is excellent; it includes a wise appraisal of the social as well as the technical factors to be taken into account when dealing with the nutritional practices of populations.

A final (and very brief) part deals with diet and physical stress. The description of the management of children's diets could have been somewhat more detailed, and the common criteria for evaluating the adequacy of diet for growth could have been discussed at somewhat greater length. Other chapters in this section, dealing with athletics, effects of climate, expeditions and emergency rations, are consistent with the excellent quality of the book.

The existence of this book will make it much easier for anyone teaching nutrition to advanced students to organize a course based on readily available references. It should make it even more difficult to justify the omission of a course in human nutrition in the training of medical students.

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Covered Wagon Geologist. Charles Newton Gould. University of Oklahoma Press, Norman, 1959. xiii + 282 pp. Illus. + maps. $4.

This is the autobiography of a pioneer geologist who worked in Oklahoma and the surrounding areas. His professional activities covered the 60 years prior to his death in 1946, and one of his early field vehicles *was* a covered wagon, though he did not make any transcontinental trips in it.

If you are a geologist working in the mid-continent area, you will probably want to read this book at one sitting. If you are a geologist working elsewhere, you should have it in your library because it is rich in allusions to the development of our present knowledge of the fundamental geology of Gould's sphere of interest, much of which was developed by Gould himself in his various posts. He was a teacher who initiated the geology curriculum at the