lege students who take an introductory course in linguistics," and in keeping with this general purpose many, but not all, of the controversies in modern linguistics have been avoided. A wide range of topics is adequately covered; the only omission of any consequence is the lack of a cohesive chapter on semantics. In Hockett's view, semantics and phonetics are peripheral to the central grammatical, phonological, and morphophonemic systems. The grammatical system comprises an inventory of meaningful units (like the *boy--s walk--ed* in *boys walked*) and the arrangements in which they occur; the phonological system comprises the inventory of contrasting sounds (like the /bojz/ in *boys*) and the arrangements in which they occur; and the morphophonemic system is the code of correspondence rules between the grammatical and phonological systems (like the rules by which the plural *-s* is represented by /z/ in *boys* but by /s/ in *cats*).

In addition to discussions of these areas, with examples from a variety of languages as well as detailed analyses of English, Hockett includes presentations of language acquisition and change, the relationship of speech to writing, the esthetic use of language, and so forth. The final chapter on "Man's place in nature" is a particularly clear characterization of the differences between human language and other systems of communication, which, together with the short introductory chapter on the relationship between linguistics and other disciplines, will prove of most interest and benefit to nonlinguists.

In spite of whatever objections may be raised, this textbook will surely prove to be an excellent introduction for the next generation of students of linguistics and will probably be more widely used as such than Bloomfield's book. However, if, by virtue of this success, Hockett somehow looms larger than Bloomfield, it is only because he is able to sit on Bloomfield's shoulders.

SOL SAPORTA
Indiana University

Farbenbestimmung in der Biologie. Parts I-VIII. Jiri Paclt. Fischer, Jena, Germany, 1958. 76 pp. Illus.

Paclt, one of the most famous biologists in Czechoslovakia, gives in this small book a general review of the technology and terminology of the colors used in the biological sciences, with the intention of forming an international basis for the terminology of colors based on a system of comparison.

The first chapter deals with the possibility of color distinction and points out that, of the effectively existing colors, only a relatively small part can be differentiated. In subsequent chapters the author demonstrates that a decimal system for the determination of colors is the most useful one, and he compares this decimal system, based on the studies of Pavlovsky, with the older systems used generally today. He gives the general and theoretical background on which a colorimetrical system can be built up. The conclusion is that only a comparative system seems to be useful for biological purposes.

After a discussion of the history of the terminology of colors, the author tries to provide an international system, because no one system existing today is entirely adequate. The existing systems—especially the Munsell System, the Horticultural Colour Chart (of the British Colour Council), the Répertoire de Couleur (of Oberthür and Dauthenay), and the Code Universel des Couleurs (of Séguy)—still have to be used, preferably in combination.

The most useful part for English-speaking people is the dictionary of colors, in six languages—German, English, French, Italian, Russian, and Spanish. The nearly complete bibliography will enable the student to use the original literature.

This book develops nothing entirely new, but it is still useful because of the newly proposed terminology and the dictionary of colors, in six languages.

HANS PETER FUCHS
Division of Ferns,
Smithsonian Institution

Doctor Squibb. The life and times of a rugged idealist. Lawrence G. Blochman. Simon and Schuster, New York, 1958. xii + 371 pp. Illus. $5.

The founder of the pharmaceutical house originally called "E. R. Squibb, M.D." was reared a Philadelphia Quaker. He was born in 1819 and graduated from Jefferson Medical College in 1845, during the excitement of the Mexican War. Despite the opposition of his church, which meant much to him, he acted on his grandmother Squibb's counsel—"Thee has only to decide which thee would serve—God and thy conscience or the monthly meeting"—and joined the Navy. Ten years later, after much experience at sea, followed by the almost singlehanded establishment of a drug manufacturing and control unit at the Brooklyn Navy Yard, he left to enter private business. Through the rest of his long life his all-encompassing interest was the manufacture of drugs and their honest representation. Although no longer a practicing Quaker—in fact he had been expelled for joining the Navy—he was obviously deeply concerned with commercial misrepresentation of drugs and devoted to drug reform. In professional societies, legislative committees, and particularly in the pages of the *U.S. Pharmacopeia,* he was a prickly protagonist for proper standards and regulations.

This story of Squibb is a well-written study of a strong and independent personality, staunch against compromise—a characteristic of many of his Victorian contemporaries. He was against sin but wanted his full interest; he worked long hours and then wrote a full diary and was impatient when his wife was frivolous; he organized his family efficiently and was hurt when his sons had minds of their own. There was more than a little of the singleminded executive type so well drawn in *The Man in the Gray Flannel Suit* in the make-up of E. R. Squibb.

WINDSOR CUTTING
Department of Medical Microbiology,
Stanford Medical School,
Stanford University

Introduction to Meteorology. Sverre Petterssen. McGraw-Hill, New York, ed. 2, 1958. x + 327 pp. Illus. $6.75.

This book is enjoyable to read and review. It is an elementary text on a discipline that is gradually coming into its own. And Petterssen is a master in telling the story of weather problems. Yet there is no sacrifice of accuracy in order to make things easy for the student. After a first run of 17 successful years, this second edition is thoroughly revised and brought up to date. The growth in subject matter is well reflected in the 91 added pages.

The book starts with a conventional review of the general structure of the atmosphere and of weather observations. Then the author takes us to the front of scientific endeavor in his treatment of mechanisms of cloud and precipitation formation. This includes a conservative statement on the artificial stimulation of precipitation.

The facts about the various events composing the weather—showers, thunderstorms, hail, tornadoes, and so forth—are well told and illustrated. The atmospheric wind systems, the air masses and fronts carried by them, and the cyclonic and anticyclonic eddies are discussed from the vantage point of one who has made major contributions in these areas. Petterssen is an expressive spokesman in these chapters for the Norwegian school of weather analysis, in which he grew up and whose triumphs he shared.

In the remainder of the work there has been a fortunate shift of emphasis from the first to the second edition. There is less material on weather maps and