is a good one. In starting with the abdomen of the insect, which is the easiest part to demonstrate and explain to the beginning student, and in taking up the more difficult and complicated parts—the thorax and the head—later, DuPorte gives evidence of long experience as a teacher.

In the introduction DuPorte emphasizes that he is especially interested in the evolution of insects. Even though he does start with generalized forms and moves on to more complex ones, this important phase of the subject seems to be played down.

Undoubtedly DuPorte covers these points completely in his lectures and in the laboratory. Apparently, in his cautious conservatism, he considers such material to be out of place in a laboratory manual for undergraduates. I hope that sometime in the future he will expand this phase of his work, thus providing in his published work the stimulus which a scholar such as he is capable of giving.

F. H. Butt
Department of Entomolgy,
Cornell University

Anatomy of the Human Body. R. D. Lockhart, G. F. Hamilton, F. W. Fyfe. Lippincott, Philadelphia, Pa., 1959. ix + 695 pp. Illus. $13.50.

The drastic reduction which has been made in the amount of time allotted to the teaching of gross anatomy in the curricula of many medical schools in this country has probably been a factor in encouraging both authors and publishers to bring out textbooks for such courses which, though considerably more comprehensive than those designed for nonmedical students, are still somewhat briefer than the traditional *Gray, Morris,* or *Cunningham.*

This volume by Lockhart, Hamilton, and Fyfe represents the most recent of these attempts to "lighten the burden of the student of anatomy," as these authors define their objective in the first sentence of their preface. It contains 697 pages, as compared with the 1500 to 1700 pages of the larger textbooks of gross anatomy. The reduction in the amount of text, however, cannot be gauged accurately by this comparison, because the use of a somewhat smaller type and of two 3-inch columns per page effects a considerable saving in space. As a result, a full page in this volume contains about one-third more words than an average page in one of the larger textbooks of anatomy. Since, however, there are more than 125 full-page illustrations in addition to at least twice that number of part-page illustrations of one-half page or more, it is obvious that the authors have achieved a very great reduction in the amount of text material. The illustrations (approximately 950 in number and most of them in color) are, in general, excellent, and their quantity and scope are such that the volume would serve most students quite satisfactorily both as an atlas and as a text.

The section on the nervous system deserves special comment, because of the unique way in which the text and the related illustrations are combined. Many of the illustrations are printed on the same page as that part of the text which pertains to them; indeed, the pertinent text is, in some instances, arranged in irregular columns which conform to the available space between adjacent illustrations. The names of key structures in the text are set in bold-faced type and are connected directly by lines to those parts of the illustration in which the structures are pictured. Thus, verbal description and pictorial representation are brought together in a manner which should be very helpful to the reader.

I am quite aware that it takes rather less wit to pick a few flaws in someone else's work than it does to create something half so meritorious. I hope, however, that at least the first two of the following three minor criticisms will be considered constructive ones, as I intend them to be.

On pages 142 and 143, the authors present a series of outline drawings showing, among other features, the position, age at first appearance, and age at fusion of various secondary centers of ossification. The ages given for some of these—those for the centers of the hand, for example—are not correct. Adequate data on the age at which these skeletal changes occur are now available from a number of radiographic studies of normal living children in Europe and in this country. The authors may wish to consult these data when they prepare the next edition of their book. The relative skeletal precocity of girls as compared with boys would seem, also, to deserve some mention in this connection.

On page 183, in the description of the *rectus abdominis,* the authors define the *linea semilunaris* as delimiting the lateral, convex margin of that muscle. Spieghel originally applied the term *linea semilunaris* to the line of approximately half-moon shape which marks the border between the muscle fibers and the aponeurosis of the *tranversus abdominis* muscle. The *linea semilunaris,* as thus defined, is for the most part situated lateral to the lateral border of the *rectus abdominis* muscle. This is, admittedly, a minor point and one which would not be worth mentioning if one were not commenting on a book in which such a generally high degree of terminological accuracy has been achieved.

One of the authors' expressed intentions in writing this book was to eliminate "such obvious statements as 'the skin covers the body' " and "to modify the rigid formula for relations known to produce such answers as 'the mouth is situated on the face and its anterior aspect externally communicates with the atmosphere.' " They have succeeded admirably in fulfilling this intention, but, in at least one instance, they seem to have slipped. On page 342, in discussing the nerves to the bladder, we find this little gem: "disturbance of micturition (evacuation of the bladder) is of great practical importance." It is reassuring, in these troubled days, to encounter at least one statement upon which there would be unquestioned international agreement—even among anatomists!

The present volume gives evidence of much sound scholarship, a great amount of labor, and considerable ingenuity in devising methods of increasing the effectiveness of illustrations as teaching aids. The book's obvious merits will commend it to medical students, to teachers, and to all others who have occasion to use it.

William Walter Greulich
Department of Anatomy,
Stanford University School of Medicine

Applications of Finite Groups. J. S. Lomont. Academic Press, New York, 1959. xi + 346 pp. Illus. $11.

It has been a matter of pride with most physicists to announce that they do not use group theory to obtain their results. Actually, what they do is to replace an organized, logical, and general method by rudimentary "common-sense" methods.

The avoidance of group theory has led to many misleading statements in our textbooks. For example, in most books on quantum mechanics the author starts from the commutation relation for p_i and q_i and derives the commutation relations for orbital angular momentum.