Louis Chauvois' book fills this gap quite well. It contains what the title promises. It gives a very scholarly and many-sided account of Harvey's times. It summarizes all the known data on Harvey, adding some that are new. Chauvois, a scientist himself, gives a very clear and original analysis of the scientific problems involved. His genuine enthusiasm for his hero is such an asset to the book that one gladly overlooks a few minor exaggerations, injustices, and omissions and gets used to a style the superlatives of which should sound better in French than in English.

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**Building an Engineering Career.** Clement C. Williams and Erich A. Farber. McGraw-Hill, New York, ed. 3, 1957. x + 299 pp. Illus. $4.75.

Some 30 or 40 years ago, the professors of electrical engineering decided that young electrical engineers ought to learn something about the science of illumination. After all, most modern lights were electric, weren't they? About the same time it was decided, also, that such students ought to learn something about electric railways because of their growing importance in transportation. Unfortunately, no one knew enough about either to construct a full 16-week semester course from his material. A compromise was, therefore, reached, in which a course in "Illumination and Electric Railways" was put together. This strange marriage of subject matter was copied by other schools, and eventually such a course appeared in many engineering catalogs. It has long since gone the way of courses in stereometry, for which we can all be thankful.

A new trend, one that is probably only 15 or 20 years old, is to teach a course on "what every young engineer ought to know." This course usually includes the history of engineering, an insight into the "engineering method" (some engineers still think they have a patent on quantitative thinking), a discussion on how and what to study, a preview of all engineering courses, a taste of ethics, and a glance into the future. Such things as how to get a job and how to run a slide rule are sometimes included, if the book doesn't get too thick and heavy.

This volume does not contain all these features but does contain most of them. It is divided into three major parts, the first of which is intended to tell the student how to get his education, and the second, to give him some historical background. The third, called "Engineering Achievements," (its purpose is not at all clear to me), recounts, almost in encyclopedia form, some of the wonders of engineering. Apparently this section is supposed to be a "come-on" to convince the student, while he is studying mathematics, physics, chemistry, English, and all the other subjects that seem to be only remotely connected with his engineering goal, that all is well, the faculty is not leading him astray, and eventually he, too, will design a bridge and rocket off to the moon.

There must now be dozens of little books aimed at guiding the student's first unsure steps toward professionalism. I have grave doubts that any of them really accomplish their purpose. There must be many good teachers who, early in their students' careers, inspire them and help them to see more clearly what they may accomplish in their four years at college. But this kind of inspiration is a personal thing, and any attempt to catch the full flavor in a written document is fraught with danger.

This little book, which was originally written by Clement C. Williams, an engineer who in his later years was president of Lehigh University, has been brought up to date, and certain new material has been added. It is a textbook that undoubtedly goes hand-in-hand with a series of lectures. It is not a book that may be expected to inspire the casual reader or the unguided student.

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**The Physiology of Fishes.** vol. I. *Metabolism.* Margaret E. Brown, Ed. Academic Press, New York, 1957. xiii + 447 pp. Illus. $12.

Young physiologists have often remarked to me that they were writing a physiology of fishes. Encouragement was never possible because of the tremendous difficulty of the venture. But the need for such a work has been increasing sharply in recent years, and volume I, *Metabolism*, of *The Physiology of Fishes*, by Margaret E. Brown and coauthors, is very welcome. It is no surprise that the contemplated single volume had to be published as two, or that the work is not a textbook in the teaching meaning of the term. If the work may be said to have a shortcoming, it is in the limited integration of such factual knowledge as is now available. Whether for printing economy or by choice of the authors, there is insufficient histology in the first volume.

Much more may be said in praise of the enterprise. An admirable group of authors were persuaded to participate, and the work clearly reflects the authority of its members. (As an aside it may be noted that the authors were drawn six from Great Britain, three from Canada, and one from the United States. To an administrator in this wealthy country it is sobering to think that, in spite of the large number of workers engaged in practical fisheries in this country, perhaps we do not provide a proportionate number of leaders in so basic an area as physiology. But of more than 1000 basic literature citations, about 37 percent are from journals edited in the United States—a figure that is reassuring, though perhaps smaller than might be expected from the large sums of money spent here on fisheries research.)

From the first chapter, that by F. E. J. Fry on the aquatic respiration of fish, there emerges a truism that is generally borne out through the work. One might assume that greater complexity would always be encountered in a study of mammalian function than in that of piscine function. But, as is revealed in Fry's careful analysis, the metabolic rates of fishes must adapt over a wide range of environmental temperatures, and the additional parameter of temperature adaptation leads not to simplicity but to complexity. Similarly, the combination of gill respiration with gut, pharyngeal, and lung respiration, treated in a later chapter, reflects itself in the properties of the blood and the adaptations of the circulatory system. The subject of fish physiology is therefore revealed as being exceptionally challenging, and it is to be hoped that this valuable book will stimulate ever wider interest and activity in the subject.

Space will not permit description of individual chapters. Coupled with the chapters on the systems supporting metabolism are chapters on skin and scales, on development and hatching, and on growth. Volume II will present the nervous and sensory systems, behavior, and such special topics as electric organs, swimbladder, luminous organs, color changes, and physiological genetics. It may suffice, then, to say that the book will be required reading for all professional fisheries investigators, to whom the carefully selected bibliography alone will be worth the cost of the volume. In addition, the book is highly recommended to every student and scientist interested either in fish or in comparative physiology or biochemistry.

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**A History of Industrial Chemistry.** F. Sherwood Taylor. Abelard-Schuman, New York, 1957. xvi + 467 pp. Illus. + plates. $7.50.

After an introductory summary, the author devotes about one-third of his book to the "prescientific" period and two-thirds to "the scientific chemical industries." The first part is an interesting survey of the older chemical industries,