ENGINEERING AS A CAREER: A SERIES OF PAPERS BY EMINENT ENGINEERS; PP. 1-212

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A SERIES OF PAPERS BY EMINENT ENGINEERS

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THE YOUNG MAN AND HIS FUTURE AS AN ENGINEER

Introduction

"What can my boy do as an engineer? — what should he learn, or where should he go to school?" These and similar questions are asked every day by anxious mothers and fathers. The boy himself, as he approaches manhood, begins at first vaguely, then seriously, to consider these matters, and inquires how he may get into some job which will ultimately open opportunities for advancement.

When we consider that each year there are ten thousand young men who start on an engineering course, and many others who would gladly do so if they knew how to proceed intelligently, the importance of a full and correct answer to these questions is apparent. If we assume that the cash outlay of the parents is at least $500 per year for these ten thousand young men, or $5,000,000 per annum, and that in addition there is an expenditure of time and energy which otherwise might be used in earning a living and represents the value of say another $5,000,000, the financial importance of this problem becomes apparent.

But the outlay of cash and time represents only a small part of the concern of the general public in this matter of engineering education. If the right man gets into the right place his value to a community will be measured not merely by tens of thousands of dollars, but by achievements which rise beyond a money valuation. On the other hand, if attempts at securing an engineering education are misdirected, or the young man is not suited by temperament or other qualities for this work, then the loss to the community may be correspondingly great in depriving it of the services of a man who might be highly proficient in some other line.

The choice of a vocation is perhaps one of the most difficult of modern problems, and at the same time, like many other far reaching and difficult matters, has been given relatively little thought. It has been left largely to chance or to individual initiative. The boy or young man tries to make a choice at a time of life when his personal judgment is unformed, and before he has had the opportunity of acquiring any considerable amount of information. The attempt of this little book is to present to youth, to teachers in the high school, and to parents or advisers, some of the facts concerning the engineering profession in general, and of different branches of engineering in particular.

Each of the following chapters have been prepared as a separate article by an experienced en-

gineer or expert eminent in some branch of engineering. Each writer has had in mind the question so frequently asked as to the probabilities of success of the young man going into his line of engineering work, and each has tried to answer the question in his own way. This has involved some repetition of thought and statement, but the fact that several men writing independently have brought out the same or similar ideas serves only to emphasize the importance of these.

Most of the articles were first published in the Cleveland *Plain Dealer* and in the *Scientific American* in response to questions asked from time to time about the opportunities and requisites for success in the engineering profession.

Each author has unconsciously written into his story something of his own characteristics or aspirations, and has pointed out a few of the causes which to him have seemed to lead to success or failure. We have thus presented a wide divergence in methods and ideas, but these are of a special value as showing how various successful, practical men have viewed the opportunities offered or have succeeded in overcoming apparent obstacles.

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