

THE ENGINEER'S PLACE AND WORK IN SOCIETY

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SUMMARY

The engineers of the past have earned a high place in society for the engineers of today.

The engineers of today has two main objectives; One, uphold the position already mady by his predecessors and two, advance societies position as well as his own to a higher plane by his work.

Education, both theoretical and practical, is the engineers solution to this challenge at the present time.

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"The physical evidences of engineering, bridges, towers, etc., are only emblems. The true social significance of engineering begins at the dawn of civilization-village life was made possible only by engineering."¹

After considering this statement, it must be conceded that through engineering and engineering alone the nomades began to congregate in small groups and that thru the continual advance of engineering these villages have become our large, modern cities. Some will criticize these statements because to them engineering is a transit, slide rule, and formula de luxe; however, I am certain that they will agree when the term "engineering" is defined. "Engineering deals with the forces and materials provided by nature and adopts them to human services for the satisfaction of human needs."²

The engineer as the builder of society, and at the present time a member in good standing, is entitled to a certain amount of wealth and all respect, just as the other professional men are; however, he does not seek wealth. The average engineer is satisfied if he has an income that enables him to live comfortably and at the same time practice in his chosen profession.

1. D. C. Jackson, E. E., The Status of the Engineering Professor. Massachusetts Institute of Technology, 1939.

2. D. C. Jackson, E. E., The Status of the Engineering Professor. Massachusetts Institute of Technology, 1939.

All the student engineers with whom I have come in contact have expressed the same fundamental idea-joy in their work and freedom from want.

Is this the proper attitude for the men who in the future will carry the torch of progress forward by their contribution to science and invention? Should this be the aim of descendents of the founders and builders of social progress? Definitely no! This negative is made not as a selfish selfish motive, but as a solution to one of the fundamental difficulties experienced by all but a chosen few practicing engineering as a means of furthering the present social system far beyond our wildest dreams. A majority of the engineers today have well founded ideas or plans to make this world an easier place to inhabit. Some inventions are better than others, but how many are given to us? Surprisingly few--just the limited number produced by the "chosen few" who are employed in the research laboratories of our large engineering industries. It is impossible for all those who desire to do research work to be employed by Westinghouse, General Electric, Bell Laboratories, Allis Chalmers, etc.; yet there are many who with a little capital would develop independently implements that would accelerate social progress.

"Acceleration of progress is very desirable but records show that 'haste makes waste' which retards progress."³

The creative ability of man is a natural function, and it can not be forced or squeezed out like juice from an orange. The proper way to increase the wealth of hidden genius is to provide the engineer with more than it takes for him to live. Some will say that, "Even though they (engineers) are employed, on an average they make more than other private professional men."⁴ What other private professional men contribute to their profession? Still others will say, "Thru science and engineering the essential paraphernalia of dictatorship are more effective than ever before."⁵ The answer to this is that, even though engineering processes and devices are being abused in warfare, it is not by the choice of the engineering profession.

There seems to be no way of furnishing the engineer with this extra capital unless the employers raise the pay of the engineer, which is very improbable; therefore, the

3. D. C. Jackson, E. E., The Status of the Engineering Professor. Massachusetts Institute of Technology, 1939.

4. E. L. Brown, The Professional Engineer. Russell Sage Foundation, 1936.

5. D. C. Jackson, E. E., The Status of the Engineering Professor. Massachusetts Institute of Technology, 1939.

engineer should acquire as much education as possible from books and practical work so he may take advantage of any opportunity that presents itself. In this way the engineer will be able to advance himself and society at the same time. It is up to the faculty in engineering schools to acquaint the future engineers with the importance of engineering in relation to society and explain that the "obligation of the engineer to himself is to develop the highest ethical aspects of engineering, since the only progress in the future is with engineering as leader."⁶

6. D. C. Jackson, E. E., The Status of the Engineering Professor. Massachusetts Institute of Technology, 1939.

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