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The Engineer's Responsibility To Post-War Society

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Years ago, in his address delivered before the French Academy in Paris, Theodore Roosevelt said, "The good citizen in a republic must realize that he ought to possess two sets of qualities, and that neither avails without the other. He must have those qualities which make for efficiency; and he must also have those qualities which direct the efficiency into channels for the public good." These qualities are still just as important, and the engineer who hopes to meet his responsibility to post-war society must recognize their value. More recently, H. V. Kaltenborn has expressed somewhat the same idea in these words. "Americans are materialists. They are also idealists. No people takes more delight in the business game, none respond more enthusiastically to an ideal appeal." So the engineer must work diligently to simplify, to improve, to conserve, to adapt, and to create material things, all the time keeping in mind that the real objective is human welfare.

At the outbreak of the war surprising developments were just coming into notice in many lines of engineering. The war necessarily concentrated attention on those enterprises which would further the war effort. Although this changed the direction of engineering activity, it by no means retarded it. Under the stress and urgency of the war need, new efficient methods, new processes, and new discoveries have come into being. Therefore, when the war is won, the engineer will be ready to apply his increased knowledge to improvements for the post-war world. A mere mention of some of the startling developments that are awaiting an opportunity to be put into use in our everyday life sounds like a tale from the Arabian Nights.

In the drafting rooms of many production plants are plans that will bring safer, swifter, and more economical transportation by ship, airplane, railroad, or automobile, and improved communication by telephone, by radio, and by television. There will be improved engines and fuels. There will be special-purpose metals, alloys, and metal substitutes. There will be new uses for glass, and asbestos, and fibers, as well as new mate-

rials, including synthetic rubber and the thermoplastics. Improved methods of lighting, apparatus for seeing in the dark, air-conditioning, and refrigeration will add to efficiency and healthful comfort. The marvels made possible by the study of electronics will bring undreamed-of advances in the fields of industry, metallurgy, television, agriculture, medicine, and public health. The promised transformations in the home of the future, to be achieved by applying engineering methods to housing problems, suggest the ultimate in convenience and comfort.

All these things the engineer must work to provide after the implements of war are no longer needed. But supplying the material means for physical comfort and efficiency is not the only responsibility of the engineer. As a good citizen he must recognize the many far-reaching problems that will face this country when the war is won and he must be able to adjust himself to new situations. In solving some of these problems he will have a definite duty to perform. The problems of reemployment of men now in the armed forces and in war industries, of rehabilitation of the disabled, of conservation of natural resources, of land conservation through flood control, drainage, and irrigation, of decentralization of centers of production, these and many other problems should be studied by the engineer. Also a general knowledge of the problems of world interdependence will give him a sympathy and understanding that will make him a more valuable citizen.

In the trying post-war days the engineer should ever keep in mind Walt Whitman's words:

"Wert capable of war—its tug and trials?

Be capable of peace, its trials;

For the tug and mortal strain of nations come at last in peace—not war."

And the engineer should be spurred on to his utmost effort by the strength of the trust reposed in youth which Emerson expressed thus:

"So nigh is grandeur to our dust,

So near is God to man,

When Duty whispers low, THOU MUST,

The youth replies, I CAN."