WHY THE ENGINEER?
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EDITOR'S NOTE
Each pledge of Tau Beta Pi, honorary engineering fraternity, is required to write, before he is initiated, an essay on some phase of engineering. The following article was judged to be the best essay submitted at the society's last initiation.

The Engineer is the base of the prosperity of the world. He is directly responsible for the excellent conditions under which the civilized peoples of the world live and the many luxuries which they enjoy. The branches of engineering science cover the entire field and have made possible the past accomplishments in all lines of industry.

The Engineer is a builder and studies the technicalities of building all types of useful articles. As the civilization of the world increases the people are always wanting and calling for new things. The Engineer is the man who solves the problem, designs and produces what is needed. No other person is qualified to do these things and consequently if it were not for the Engineer they would necessarily go undone. The Civil Engineer builds the roads, the bridges, the dams, and the steel structures of large buildings, while the Architectural Engineer adds a touch of beauty to the design and helps to make the arrangement such that it will be convenient to the occupants. The Mechanical Engineer designs and builds the mechanical appliances which are used today to industrial Engineer aids the Mechanical and Electrical to manufacture their products efficiently, electrical power to mechanical devices. The Industrial Engineers aids the Mechanical and Electrical to efficiently manufacture their products. The Mining and Metallurgical Engineers discover, develop and produce the materials which the Civils and the Mechanicals, with their allies, may use. The Chemical Engineers are constantly developing new combinations which are beneficial to the engineering industries. The product of the Ceramic Engineer is used directly by the public and also by the other department of engineering.

Each branch is dependent on the others for either the production or disposition of their product. Business and the welfare of humanity rests entirely upon the shoulders of the Engineer.

All through history the advance of different races and of civilization as a whole has been coupled with the advance of engineering science. If it is true that history repeats itself the Engineers of the future will have as many problems as those of the present and past.

The Engineer is responsible for the maintenance of a nation in time of peace by providing the population with a place to live, food to eat, clothes to wear, a place to do business, and a means of transportation over short and long distances. By “a place to live” we mean a comfortable home of artistic design and equipped with all the modern conveniences; by “food to eat” we mean irrigating and reclaiming waste land, affording a means of cultivating the land and harvesting the crops, transporting the foodstuffs to town, putting them into the form desired by the consumer, and storing them until marketed; by “clothes to wear” we mean producing the raw material, making it into various cloths, and then manufacturing the finished garment; by “a place to do business” we

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mean the development of industries which will afford employment for the public; and by "a means of transportation" we mean the building of highways and the automobiles and trucks to operate upon them, the building of railroad beds and the trains to operate upon them, the building of ships to navigate the sea, and airships to navigate the air.

The Engineer, in time of war, must fulfill his peace-time obligations, and in addition he must design and build arms, munitions, clothes, and equipment for the army, and provide for transporting troops, food, and equipment to and from the battle front.

In short, the Engineer is responsible for the design and construction of all things needed and used by the civilized peoples of the world.