THE SANITARY ENGINEER AND HEALTH

Professor Whipple summed up the relationships between the sanitary engineer and health as follows:

Looking back a century or more, we see the beginnings of industrialism, the rise of the factory, and the growth of cities as a result of science and engineering; we see the early evils of industrialism leading to a humanitarian movement; we see the great sanitary awakening at the beginning of the Victorian era. Then came Pasteur, the science of bacteriology, and the new public health. Now with advanced ideas of industrial humanics, housing and city planning, we are entering upon a new era of sanitation and once more the engineer must lead. Industrial revolution and a rude economic awakening are already upon us. The age of power is becoming the age of super-power; city planning has already become regional planning; decentralization of population is coming. The new problem is not so much how to educate a few sanitary engineers, as to how to educate all engineers to work in the interest of health and life.

The sanitary engineer especially comes close to life. A knowledge of biology is fundamental to his success. His work is a contribution to the great elements of life. He has opportunities to protect and promote health and comfort. He has opportunities to protect the beauty of trees, streams, lakes and ocean shores; to build beautiful structures, to utilize the latent beauty of falling water. Although burying much of his work underground, he makes possible the development of noble city plans. Through organized cleanliness he makes it possible for the beauties of architecture to be revealed. The new architectural-roof motive, already evident in New York, resulting from the restriction of building heights is an outgrowth of a sanitary demand for adequate light and air. Through insistence on individual responsibilities in public sanitation there is being developed a moral sense of duty and a spirit of cooperation, which is the very soul of civilization.

It is well at times for sanitary engineers to stop and look at these things, and even to indulge in a little self-conscious professional pride, in order to encourage young men to enter this field of work. We can testify to them that sanitary engineering is a worthy, beneficent calling. It offers a sufficient living, opportunities for scientific achievement in varied fields, and many pleasures by the way. Some of us who began work just at the time when the spirit of Pasteur was stimulating all public-health efforts have witnessed striking changes in living conditions due to improved sanitation of air, soil, water, food, streets, houses, factories and public buildings. We have seen pestilence yield to science. We have seen the art of water purification accelerate until a grossly polluted public water supply is now almost a thing of the past. We have seen the art of sewage treatment push towards the goal, but with many yards yet to go. We have seen city and regional planning develop as the art which is to save our cit-

ies from their own colossal folly. We have seen chemistry, biology, and engineering unite in solving our sanitary problems. We are now seeing young men from all parts of the world coming to America to learn the art of sanitation and health promotion and returning to their several countries to practice them and teach them in their own universities.

World-wide sanitation is looming ahead as a twentieth century possibility—I may even say a necessity, for we are fast entering an age in which our unit of environment is the world.