act of 1895. The problem has been one to obtain a large amount of water from a source other than that which has, in the past, been relied upon. The present undertaking will provide a permanent water supply for greater Boston—the Metropolitan District—with certain exceptions of Cambridge, Lynn, and other towns. This work, which will involve the expenditure of at least twenty-five million dollars, cannot be completed for a considerable period. Already, upon this work alone, a large number of recent graduates of Technology in Civil and Sanitary Engineering have been employed.

In the purification of water and of sewage by chemical precipitation, sand filtration and irrigation, an immense future is now opening. The city of Boston has recently completed a very extensive and well-constructed series of filter beds for the purifying of sewage; and the city of Worcester has enlarged its precipitation works so that they have become, perhaps, the most interesting in America. There is no department of engineering in which larger or more important and extensive civic and municipal works are likely to be undertaken within the next few years than in Sanitary Engineering. The increase of population, and the growing attention paid to questions of the Public Health, make it certain that extremely important problems in this field will shortly be undertaken.

Among other important engineering operations to which reference will be made are: the Chicago Main Drainage System, providing at an enormous outlay for the discharge of the sewage of the city of Chicago into the Illinois River, and the New York Transit problem, now being agitated. The scheme embraces the construction of a subway for New York City at a cost of fifty millions of dollars.

In Railroad Engineering attention should be called to the present operations of securing grade crossings throughout the more thickly settled portions of our country. In example, the Boston and Providence Railroad, for a distance of four miles outside of Boston, has been compelled to construct grade crossings, at an outlay, when completed, of four million dollars. At Brockton, similar work will incur an expenditure of two and one-half millions. On the Boston and Albany Railroad, throughout the city of Newton, the same problems must be solved. On the long stretch of the New York, New Haven and Hartford Road, between New Haven and New York, the construction of four tracks and of grade crossings is now being accomplished at an immense cost. In Providence the outlay of several millions was made necessary in the arrangement for a new station, and the establishment of grade crossings, while in Chicago and in other large cities the same difficulties are repeatedly arising and must be met at a large expenditure, requiring skill and training of the highest sort.

In addition to the number of instances which has been cited, it is scarcely necessary to refer to the operations which are being conducted by the Massachusetts Highway Commission, and by similar Boards in other States, upon which a large number of Technology graduates are employed.

In Constructive Engineering it may be said that such buildings as the new Tremont House, the Ames and Worthington Buildings of this city, and large numbers of huge, steel-frame structures in other cities, are almost of necessity designed and supervised in construction by civil engineers.

Notwithstanding the unfortunate financial standing of the country at large during the past few years, the demand for graduates of Courses I and XI has been far greater than Technology could supply. In fact, it would be upon a conservative estimate to state that at least twice as many applications for men have been received by the Department of Civil and Sanitary Engineering as it was able to supply, and this, it may be said, without any effort whatever to stimulate applications on the part of the Professors in charge.