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THE LICENSING OF ENGINEERS.

Our attention has recently been called to a New York State law which seems to have been inspired less with a desire of serving the public and protecting its interests than for some less honest and less disinterested motive. We refer to a law enacted on May 22, 1897, establishing rules of qualifications for those having the care of boilers, steam generators or steam engines. Precaution should be taken to protect the public against accidents from negligence, ignorance or mismanagement; but the law in question can hardly commend itself to the unbiased mind, owing to the very narrow nature of certain of its features.

The particular features of this measure which show the animus which inspired the introduction of this bill are to be found in the qualifications governing the applicant for examination. In the first place, the applicant must be a citizen of the United States and over twenty-one years of age. The application must show that the applicant has been employed as a fireman, oiler or general assistant under a licensed engineer in some building in the city of New York for a period of not less than five years. It is evident from this provision that a thorough knowledge of steam engine practice is not what was sought after by the promoters of this bill.

This bill, like many others of its class, was passed by the Legislature without proper investigation into its merits or demerits. The bill was introduced to benefit a particular class; it manifestly had no other aim or object. The protection of the public against mischief is entirely of secondary importance. Like much legislation that we have to endure, this tends to make many suffer for the benefit of the few. The enforcement of this unjust and foolish law will throw out of employment many who have, for years, had charge of buildings and who were competent to manage the same as well as if they had been an assistant under a licensed engineer for a period of five years in some building in New York.

It is to be hoped that this foolish law will be repealed. If it is not repealed, it is probable its validity will be tested, and it is more than possible that the act will be deemed unconstitutional.

The interested motives of the promoters of this bill may be noted from the fact that it was to take effect immediately, the intent evidently being to throw hundreds out of employment before they would be able to qualify themselves for passing the required examinations, or even filing their applications therefor.

PRISON ASSOCIATION OF NEW YORK EXHIBITION.

The recent exhibition of the Prison Association of New York was held with the idea of giving the public a more intelligent idea of the inner workings of our State prisons than it can glean from the daily press. The objects of the association are practical and humanitarian, and this was evident from the character of the exhibits, in which was very little of a merely sensational character. By far the greater part of it consisted of specimens of the handiwork of convicts in the prisons of New York State. A notable exhibit was that of a complete set of furniture for the warden's office, made by the prisoners at Sing Sing. It was made in oak, richly carved and polished, and the work would have done credit to any first-class factory.

The clothing worn by the convicts is made on looms in the prison, and the various State institutions for the blind, the deaf and other unfortunates are also entirely supplied from this source. Here were shown specimens of the various suits, both for men and women, together with prison-made blankets, toweling, etc. The various prison schools and workshops at Sing Sing were represented by drawings, cabinet and joiner work, plaster cornice work, boots, shoes and a host of other articles of wear and household use.

The one truly sensational object in the exhibition was the chair used in electrocution at Sing Sing, in which thirteen people have already suffered death. Except for the heavy straps at the arms and legs, there was nothing to suggest its tragic purpose. The celebrated Bertillon system for the identification of criminals was shown and explained, and a typical case of photographs from the rogues' gallery formed part of the exhibit.

In a room devoted to the Elmira Reformatory a surprisingly large number of the arts was represented by specimens of steel engraving, zinc etching, bookbinding, printing, photography, etc., done by the boys in the various classes. Near by was a large board of drawings, mechanical and architectural, which had been made by prisoners who had received only six months' instruction.

In looking over the varied collection of articles, all the results of instruction in useful arts and sciences, one found it difficult to believe that it had come from within the inclosure of State prison walls. The exhibition testified to the great advance which has been made over the old methods in the treatment of convicts, and it is easy to see that, as far as the occupations of prison life are concerned, everything is done to improve the more debased and ignorant among the convicts and give them some reasonable hope of honest livelihood when their terms have expired.

The inmates of the State Penitentiary for the Eastern District of Pennsylvania were represented by a large model of that famous institution, made by themselves. This prison is conducted on the much discussed plan of solitary confinement adopted generations ago by that State. The prison is laid out so that the idea of solitary individual confinement shall be literally carried out. Formerly, from the time the convict entered the massive gate of the prison to the day on which he left it he never spoke to or looked upon the face of any man but his keeper. To secure this result the prison is built on a radial plan. The outer wall of the inclosure is 30 feet high and 640 feet square. In the center of the square is a tower 40 feet in diameter and two stories high, and from this radiate, like the spokes of a wheel, eleven long, low, one-storied structures. Each wing is built with two outer walls and a central dividing wall and covered with a low pitched roof, and it is divided by partition walls into a long double line of cells. Each cellopens out onto a little yard which is surrounded by high walls and is of about the same area as the cell. Light is obtained by a grated window in the roof. Formerly the convict ate, slept and worked in his cell and took exercise in his little yard, absolutely alone. The prisoner is received in the central tower, his pedigree is taken, and he is then taken to one of the cells, which he never leaves except for exercise. The idea of solitary confinement is not carried out so literally as it formerly was; but the convict does all his work in his cell and is never thrown in contact with the other convicts in workshops and classrooms.

Very different from this is the modern steel prison, with its modern provisions for light, heat and ventilation. The methods of this construction were shown by illustrations of the new wing of three hundred cells which is being built at one of the State penitentiaries.

A SEVENTY THOUSAND HORSE POWER CENTRAL STATION.

Work is progressing upon a building in New York City which will contain the largest aggregation of motive power ever gathered together in a single plant. Hitherto that distinction has belonged to the great ocean steamships, the largest power at present being in the engine rooms of the Campania and Lucania, of the Cunard line, each of which is credited with a maximum trial horse power of 33,000. In this connection it is interesting to note that the huge industrial establishments to be found in the textile and iron industries, with their miles of shafting, their vast power-driven machinery and their employes numbered by the thousand, do not call for one-half the motive power that is to be found snugly stowed away in the engine room of a St. Paul, a Lucania, or a Kaiser Wilhelm der Grosse.

The new power house is being built by the Metropolitan Street Railway Company of New York and it forms part of the scheme for introducing electric traction on the whole of the 218 miles of street railways owned or controlled by this company. At present there are three different systems at work: the cable, the underground trolley and the horse car. The mechanical power is supplied from four power houses: a cable power house on Houston Street and Broadway, another at Fiftieth Street, a third on East Twenty-sixth