

age for its sewage than is now provided. This is necessary to prevent the pollution of the only source of its water supply, and to carry the sewage away from the city as quickly as possible. A channel for drainage purposes as well as for navigation purposes has been authorized by the State Legislature. Nearly the entire area of the city has, under the State law, been organized into a drainage district. The law requires (and this requirement it may be stated was demanded by the towns and cities located along the Illinois River) a continuous flow of not less than 300,000 cubic feet per minute, with a current not exceeding three miles an hour and 600,000 cubic feet per minute, when the population of the district draining into the channel exceeds 1,500,000, with a requirement for a still larger volume when the population exceeds the number last named. It is specified that the water shall not be less than eighteen feet deep through the channel, and that the width of the channel shall not be less than one hundred and sixty feet at the bottom. By a joint resolution the Legislature requests the United States Government "to aid in the construction of a channel not less than 160 feet wide and 22 feet deep, with such a grade as to give a velocity of 3 miles per hour from Lake Michigan at Chicago to Lake Joliet, a pool of the Des Plaines River immediately below Joliet, and to project a channel of similar capacity and not less than 14 feet deep from Joliet to La Salle, all to be designed in such manner as to permit future development to a greater capacity." It is apparent from the rapid growth of the city, that long before these works, so great in magnitude, and costing probably twenty-five or thirty millions of dollars shall have been completed, there will be at least 2,000,000 of people in the drainage district. The normal growth of the city will, no doubt, make the population as great as this before the year 1900. The large quantity of water to be sent through this channel into the Illinois River Valley will, it is expected, raise the low water level of the Illinois River about 7 feet, and that of the Mississippi River at St. Louis at least one foot, and probably six inches at Cairo at the junction with the Ohio River. On the Mississippi River itself the United States Government is expending large sums of money in deepening and rectifying the channel for navigation, with the ultimate purpose of obtaining a minimum depth of 10 feet at low water between New Orleans and Cairo, a distance of about 1000 miles by the course of the river. As is well known, it has expended a large amount of money in removing the obstructions at the mouth of the Mississippi, and has created by the works there a channel 30 feet deep between the river and the Gulf of Mexico. This result was obtained in 1879, and the channel has