

The sand excavated was quite coarse, and but little agitation was necessary with shovels, in order to allow the pump to pick up the sand. When the sand is fine grained much more water is needed, and likewise the sand must be agitated with shovels. With extremely fine sand the men must be relieved frequently, as the work is hard, and the pump taking up a much smaller percentage of the sand, means the ditch must be kept with a larger amount of water in it, and the men, being compelled to stand in the water, feel the effect of it quickly.

At times when we got as deep in the trench as the original grade line, we encountered roots and stumps that had to be cut out, but this was seldom necessary.

Fig. 4 shows the layout of the plant to do the work in the manner described. In this way three hundred lineal feet of trench was dug and pipe laid, per day, while on similar work under the same conditions in Holly Beach a contractor made but from thirty-five to fifty feet per day, doing the work by another method.

Very little trouble was experienced in laying the water and gas mains, as these were but two feet deep, and on all but two principal thoroughfares were located in the centre of the street. Fire hydrants were located on a radius of six hundred feet from one another, and but two electric light and telephone poles were allowed to each block of five hundred feet.

The sidewalks were of cement and but three feet wide, and these, as well as a concrete curb, were placed as soon as the sewers, gas, water, telephone and other wire conduits were laid, after which provision was made for ballasting the streets.

Two spurs of the railroad were extended temporarily through the property, and with a plant of eighty carts, three steam graders, three steam rollers, and two hundred men, the work of grading sixteen miles of streets commenced. The roads and streets were finished with a nine-inch coat of Burleigh gravel, and no provision was made to carry off the storm water owing to the permeability of the soil, but the grade was broken and towards two shed lines, where sumps were located that were connected with the main out-fall sewer. The trolley line was then extended through the property on the main streets and operations commenced for laying the pavement.

It was contended by many who were familiar with the then existing conditions that it would be next to impossible to secure a satisfactory foundation for the pavement, owing to the fact that three months previous the street was merely marsh covered with "springs" and "salt holes." Previous to starting the construction, notice was served upon all parties concerned that dig-

