

abutting on the docks. Ten years ago this area formed part of a gentleman's demesne, and consisted of green fields and avenues of trees. A company, recognising its potentialities on account of its proximity to the docks and the fact of its having three miles of frontage to the canal, purchased the estate, and cut it up into industrial and town sections. Mr. Marshall Stevens, managing director of the Trafford Park Estate Company, gives the following description of the position of the estate at the end of 1906:—

“There are seven engineering firms on the estate, turning out machinery and machine tools of all sorts and sizes, from the heaviest castings for the turbines of the latest Cunarder to the motor-car which won the Tourist Trophy Race. There are five firms of contractors and constructional engineers. Eight timber-merchants are located in the park. Three sawmills are in operation, and a fourth is in course of erection.

“Two new flour-mills have been completed, and are turning out sufficient flour to supply the requirements of considerably more than half a million people. There is a large provender-mill at work, and another in the course of erection. Another large malting-house is being added to the one existing. There are two railway and tramway carriage works; one, an American concern, turning out a fully equipped railway-carriage per day for the London tubes. The burning-oil trade is represented by a tankage-capacity of 6,500,000 gallons, and six miles of pipe-lines are available for delivering the oil from one end of the park to the other. Another firm has been added during the year to those concerned in the production of lubricating-oil.

“The warehousing of the merchandise is being provided for by a warehousing company, who are adding two more to the six warehouses they have already. One firm manufactures electric cables, employing between six and seven hundred men, and the two others make cable conduits; another provides electric power and light. There are also a lard-refinery, a large iron-merchants' depot, a gear-cutting works, a lead-pipe factory, turning out a sufficient length of lead pipe per annum to reach from Manchester to Moscow; a glass-bottle works, the largest in Europe, now nearing completion; a brickyard, a stone depot and stone-polishing works, a fireproof-flooring works, a bacon-curing factory, a biscuit-distributing depot, an enamelling-works, a metal-refining works, and two banks. All the factories are naturally equipped with the most up-to-date appliances, and directly and indirectly they give a livelihood to at least fifty thousand people. More than half a million tons of traffic pass over the railways per annum, and two millions of passengers travel upon the electric and gas cars running in the park.”

The advantages of Manchester as a distributing centre are not exhausted by the statement of the population within the cartage area from the docks. It is claimed that Manchester is the best port for the supply of goods to 177 towns in the interior of England. In eighty-five of these towns, each with over 20,000 inhabitants, there was, in 1901, a total population of 6,360,180; and when the smaller towns and villages are included there is a population of over 10,000,000 nearer to Manchester than to any other part. This is almost entirely an industrial population, earning good wages and consuming large quantities of all kinds of foodstuffs.

The Manchester Ship Canal, besides being a great boon to the manufacturing and commercial interests of Lancashire, Yorkshire, &c., is a wonderful monument of engineering skill, as any visitor can see on even a casual inspection. It is unnecessary in this report to deal with the various engineering problems or to describe the means by which these were triumphantly solved. The Ship Canal is about thirty-six miles in length, and might be described as a continuous series of docks and quays. Beginning at Eastham, where the canal joins the Mersey, we find a “lay-by” 1,450 ft. long, with a water-depth of 28 ft., and electrically driven sheer-legs of 15 tons lifting-power; there is also a large wharf at Ellesmere Port, near which is a pontoon floating dock. Further up the canal is the Runcorn “lay-by” 1,500 ft. long, with a water-depth of 28 ft.; also six docks, with a water-space of 15 acres; higher up is the Warrington wharf, 300 ft. long, where large vessels can be loaded and discharged; still higher up are the Partington Coaling Basin, nearly three-quarters of a mile long, with 6½ acres of water-space and over twenty miles of railway-siding; the Irlam wharf, 300 ft. long; and the Irwell Park wharf, Eccles, 1,000 ft. long, besides a number of smaller wharves and quays. The principal docks are, of course, at the Manchester end of the canal, fifty miles from the sea. The Ship Canal Company is also a railway company, owning 132 miles of line, of which sixty miles are at the Manchester docks, with forty-eight locomotives, 1,450 wagons, and sidings to accommodate 9,000 wagons.

Docks, Sheds, etc.

The Manchester Dock Estate covers an area of 406½ acres, including a water-space of 120 acres, and quays 6½ miles in length, and 286½ acres in extent. The height of the quay-walls is about 8 ft. above ordinary water-level.

The dimensions of the Manchester docks are:—

No. 1	...	...	700 ft. by 120 ft.	No. 6	...	...	850 ft. by 225 ft.
No. 2	...	...	600 ft. by 150 ft.	No. 7	...	...	1,160 ft. by 225 ft.
No. 3	...	...	600 ft. by 150 ft.	No. 8	...	...	1,340 ft. by 250 ft.
No. 4	...	...	560 ft. by 150 ft.	No. 9	...	...	2,700 ft. by 250 ft.
No. 5		...	980 ft. by 750 ft.				

(No. 5 Dock, though planned, has not been completed.)

The equipment includes 53 hydraulic, 60 steam, and 91 electric cranes, with a radius of from 16 ft. to 40 ft., capable of lifting from 1 to 10 tons to a height from rail-level of from 13 ft. to 59 ft.; a 30-ton steam crane; six floating pontoons of a dead-weight capacity of 800 tons each, and all modern appliances for giving vessels quick despatch. There is also a pontoon sheers capable of dealing with weights up to 250 tons, with a lift of 21 ft.