



*Eastham Locks.*

Six years later, in 1893, the Manchester Ship Canal was filled with water, and on New Year's day, 1894, the Canal was opened for traffic, and a procession of 71 vessels completed the journey from Eastham to Manchester. In May, 1894, Queen Victoria formally opened the Canal, which had cost approximately £15,000,000. Over 16,000 men were engaged on its construction, and some 76,000,000 tons of earth were excavated.

The Canal is 35½ miles long, with its entrance into the River Mersey at Eastham. There are

five locking systems which maintain the various levels, with limits for vessels of 560 ft. over-all length and 63 ft. 6 in. beam. Vessels, however, up to 75 ft. beam can navigate through Eastham Lock and as far as Ince Oil Berth.

The Canal has been excavated to 30 ft. for some miles above its entrance and thence to Manchester the depth is 28 ft., which normally will permit vessels up to 26 ft. draught to navigate the whole length. The bottom width is generally 120 ft., except for less than a mile on one section, where the bottom width is 90 ft. Owing to the fixed bridges over the Canal, vessels' masts or funnels must not be more than 72 ft. from the water line, and facilities are provided at Eastham for lifting off funnel tops or top masts if required.

One of the most complicated problems the engineers had to face was the crossing of the River Irwell (which was canalized at that point) by the Bridgewater Barge Canal carried on a stone aqueduct. To overcome this difficulty, the original aqueduct was replaced by the present one, which is a swing bridge revolving on a central pier. When the bridge is opened to permit the passage of seagoing craft up the Canal, the swinging section, with its trough of water, moves into a position in line with the Ship Canal; when closed it forms a continuous section of the Bridgewater Canal.



*Part of Terminal Deep Water Dock.*