

modities to be catered for. On the other hand, on ships entering the London docks charges have been excessive. A costly programme of works has been initiated by the Port of London Authority with the object of deepening the river and bringing the upper docks up to date. It is highly probable that a well-devised scheme under which deep-water traffic would have been concentrated in the lower reaches of the river, where deep water naturally exists, could have been evolved, the transport by lighter to warehouses and upper docks being left undisturbed. Thus economy in distribution would have been realized and vast capital expenditure avoided. However, the transfer of the docks to State ownership and the creation of the Port of London Authority have taken place, and expansion of the trade has so far kept pace with and thus justified the changes effected.

Liverpool is in a totally different position. There the traffic is in the main that of vessels of great tonnage, and the goods are handled direct *ex* ocean-going ship to warehouse.

The vast increase in recent years in the shipping facilities of Southampton demonstrates how all-important physical conditions are in determining the type of shipping accommodation which it is desirable to provide. The latest addition to that port was that of a deep-water basin having a total frontage of 4637 feet and a depth alongside at low water of 40 feet. The principle of deep-water quayage has, by its construction, been confirmed. The peculiar tidal conditions existing at Southampton, and the unique shelter due to its geographical position in regard to the Isle of Wight, have largely shaped its development. The tidal conditions at Southampton are such that at spring tides the tide, after ebbing at the rate of about 3 feet per hour to its lowest point, at once commences to rise at about the same rate. At high-water level it is practically stationary for about three hours. The double tide in Southampton Water is the result of the travel of the tide, passing first round the north-western shoulder of the Isle of Wight, and then round its north-eastern shoulder, thus encircling the island and causing a meeting of the consecutive floods and effecting a welling-up of the water at Southampton. The facilities of the port are thus almost unique.