

THE LATE MR. JOHN PENN, OF GREENWICH, MARINE ENGINEER.

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This eminent mechanical engineer, well known as the inventor and constructor—the most approved steam-engines for ships and steam-boats, was born in 1805, at Greenwich, where his father had established a factory for making agricultural implements and other machines. He began work very early, and fitted the steamers Ipswich and Suffolk, running to London along the east coast, with beam-engines, each of 40-horse power. In 1835 four passenger-boats to run between Green-

wich and London were similarly engined by him. In 1838 his well-known oscillating engines with tubular boilers were applied to some of the boats running above London Bridge. The way in which these worked attracted general attention. In 1844 the Lords of the Admiralty were induced to place their yacht the Black Eagle in his hands. He replaced her former engines by oscillators of double the power, with tubular flue boilers, but in the same space and without any increase of weight. A number of orders followed to fit up ships on the same principle. Among them

we may mention her Majesty's yacht the Victoria and Albert and the Great Britain. But Mr. Penn's success was stilf more remarkable with the trunk engine, designed for the propulsion of fighting ships by the screw, and capable of being placed so far below the water line as to be safe from an enemy's shot. In 1847 he was commissioned to fit her Majesty's ships Arrogant and Encounter on this system. He has applied trunk engines to no less than 230 vessels, varying in power from the small gun-boat of 20-horse power to such ships as the Sultan, giving an indicated power of



ANCIENT TOMB EXCAVATED NEAR LARNACA, CYPRUS.



ENGLISH TOMBS IN CLOISTERS OF GREEK CHURCH OF ST. LAZARUS, LARNACA.