

water sections to still or smooth water. This facility of construction enables this improved Breakwater to be affixed and Harbours formed on any, even the most exposed and dangerous, localities. The forms of these floating sections will vary according to the exigencies of the various situations. In seas and deep waters they will be entirely floating; and for shallows and in-shore protection, moveable piles, sluices, and dock gates peculiar to this invention are adopted.

Independent of the sanction of the numerous distinguished Patrons of this plan, as now presented to the public, its practicability and efficiency has been tested on a small scale, and has obtained the approval of nautical and scientific men, the best able to decide on its merits.

Besides the vast saving in the cost (ten thousand pounds expended by this plan being more effective than ten hundred thousand by stone Breakwaters) this Floating Breakwater possesses many advantages of incalculable superiority over all others. Such as the very short space of time requisite for its construction, four or five months being amply sufficient. Its being made in sections, also, renders its repair at any given part an easy operation, both as regards time and expense, although it can be confidently asserted that no repair will be needed during the first fifteen years; and then, should repair of any part become necessary, the old material will always realize one half its original cost.

It also prevents the accumulation of mud and sand, and their injurious consequences to harbours and channels, which it is too well known are the constant defects caused by all stone Breakwaters.

And this plan can be adopted and harbours and places of refuge formed where not only none at present exist, but where also none, other than by this method, can be constructed.

That the Government of this country will avail itself of the ready means which the facilities of this invention afford, to effect works of such paramount importance, (which it has hitherto been deferred from undertaking solely because of their apprehended immense cost), there can be little or no doubt. The increasing necessities of commerce will also secure its adoption by the corporations of maritime places, which have heretofore been precluded from possessing so essential a requisite for the prosperity of their trade.

The invention is also peculiarly adapted for improving and enlarging, at a trifling expence, old harbours, rendering their access easy for ships in distress, and clearing their channels, and removing mud deposits, by concentrating the force of the tide or currents; and we may fairly rely that there is scarcely a single port in the united kingdom which will not avail itself of the benefit now presented by having some sections of the Breakwater laid down, the cost being so comparatively small and the advantages being so great; particularly as the parliamentary returns shew, that wherever a harbour has been improved, or increased harbour accommodation afforded, trade has invariably risen at an extraordinary rate, and the harbour dues have also in like manner as rapidly and progressively increased, as the following extract from those official returns prove:—

Liverpool .	1790 £10,037	1800 £23,379	1810 £65,782	1820 £94,112	1825 £128,080	1830 £151,330	1833 £182,080	Increased in 40 Years £172,943
Glasgow .	1815 £5,900	1820 £6,300	1826 £16,200	1830 £20,000	1835 £33,000	1836 £37,000		Increased in 21 Years £31,100
Dundee . . .	1816 £1,409	1823 £7,800	1830 £11,000	1834 £8,500	1836 £12,000	1837 £15,000		Increased in 21 Years £11,200

The following is the number of vessels belonging to different nations, which passed the Lizard Point in the course of a single year, English 15,000, American and French 3,150, Danes and Swedes 1000, Prussians and Norwegians, Dutch, and Russian 1000, Spanish, Portuguese and others 500, making a total of 20,650 vessels; and taking the average to be ten men to every ship, gives the number 206,500, and of these vessels 15,000 (with 150,000 souls on board,) pass the land's end every year, some making more than one voyage; and it is ascertained that upwards of 500 vessels are annually wrecked on our coasts, causing a loss of life of 1,200 mariners, and of property to the amount of £3,000,000.

Were harbours and places of refuge formed, as contemplated by this Company, this dreadful calamity would, it is obvious, be in great part averted, and the fearful sacrifice of life and property would be greatly diminished.

The result to the Shareholders on the employment of the Company's works and means in such a meritorious cause, cannot fail to ensure a return in a pecuniary point of view, which will far exceed the most sanguine expectations, ~~and it is underrating the fact, if we calculate profits of 500 per cent. on the least~~ ~~on the capital expended.~~ And in addition to the main objects of this invention, the principle can most successfully and profitably be extended to various other important objects, of minor, though scarcely less useful purposes, such as the protection of embankments, fortifications, piers, mill-dams, bridges, &c. which are now exposed to the unresisted fury of the sea; vessels on shore, can also be protected from further damage by mooring sections of the Breakwater near them. The prevention of the sea's encroachment on lowlands subject to its visitations, will also form a material feature of the utility of this invention, and its application in aid of operations for regaining lands from the watery element, will sensibly diminish the expence of such undertakings. Its use will also be appreciated in securing the safe landing of passengers, and goods by the steamers and other vessels, and greatly tend to increase our fisheries, by affording at a very moderate outlay security to our fishing craft, and protection to the meritorious and hardy fisherman, whose daily exposure and exertions have such pressing claims on every friend to humanity.