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#  FLOATING BREAKWATER 

# COMPANY, <br> CAPITAI, \&250,000. IN 25,000 GELARES OF \&10. EACH. Deposit \&2. per share. 

CAPT. CHARLES BASDEN, R.N.
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CAPT. HENRY ETANHOPE, R.N.
ADMIRAL RICHARD THOMAS, R.N.
CAPT. EDWARD WILLIAMS, l.N.
CAPT. JOHN WILSON, R.N.
CAPT. RICHARD A. YATES, RN.

THIS Company is formed for the purpose of bringing into operation the invention secured by Letters Patent, granted by Her Majesty to Capt. J. N. Tavirin, R. N. C. B., for his Floating Brenkwater for the improvement of Harbours.

It is universally almitted that there has long existed a grevious deficiency of shelter on our conats 1 and the imperative noresaity for the prevention of shipwrecks. and the immenne apumal loss of hife and property, has recently drawn the attention of our statesmen and the public to the evil. Government, with the sanction of parliament, very lately appointed commissieners to visit and survey a part of the coast, and report on the state of the existing Harbours, with reforence to their being made available ns places of shelter in case of distress from weather, as also places of refuge for Merchant vessels from enemy's cruizers in time of war ; and eapecially as to their being made stations for armed vet els, employed for the protection of our trade in the narrow part of the chamel.

It will be seen by the Reprort of those Commissioners presented to larliament, that they found no one Harbowr capable, in its exinting stcte, of answering the purposes of Government; nut that they strungly recommended that the present harbours be kept up and improved, and also that other harbours of refuge be immediately formed and made available. And they certify, that upon the old principle of the stone Breakwater, three of such harbours will cost the nation $£ 6,000,000$ sterling. [See the Extract of this Report at the end.]

Tho labours of these Commissioners were limited to a small prortion only of the consts of Enghand; but it is equally known and admitted that many other portione of the British consts, us well as of Ireland, are alike deetitute, and injuerionsly repuire sinilar protection for our trade; and for the security and preservation of all that constitutes the main pillar of our mational greatnese and naval superiority, two hundred and fifty of such new harboure and places of refuge, at the least are required, independent of the vast improvements which are ulso needed in those at preseut exiating ; the immense cost of which upon the hitherto known methods renders such national works impoesible. The Chancellor of the Exchequer, feeling the pressing importance of the subject, declared in a very recent debate in the House of Commony that, anaious as this Government is to establish it nwmber of Uarbours, it is prevented from doing so ut present ly the state of the penblic revenne.

Happily, however, 'C'apt. Tayler's invention entirely removes all difficulty, and effective and rapudious Harbours can now be made on every part of our coasts at a romparutively trifling expense ; so much so, that, startling as the assertion may seem, the present Company can by their method form one hundred aut eighty sweh harbours and plueer of reftege at a cost of less than the anm eatimuted by the Government Commissioners, na the owtlay requisite (by the old modes) for the comatruction of three.

The principle upon which this Invention acts so effectually is simple, and carries romiction with it even tominds the lenst selentific ; it is that of gielling and giving way to the furce and vinlence of the sen, instead of opmosing to it a fixed and solid resistance, by means of floating nections of timber, which at the same time they yield to the shorks of the sea mul the violence of the winda, also atanit the waves lo pass under, over und through them, und thus, whilegiving vent to the fury of the wavoa, so dividing and breaking them, as to reduce them to in onsin and harmbess state, thereby converting ull within the inner circumference of the lireak.
wnter mections to still or smooth water. This facility of construction enables this improved llreakwater to be affixed und IIarlours formed on any, even the most exposed and dangerous, localities. The forms of these floating sections will vary according to the exigencies of the vurious situations. In seas and deep waters they will be ontirely floating; and for shallows and in-shore protection, moveablo piles, sluices, and dock gates peculiar to this invention are adopted. .

Independent of the sanction of the numerons distinguished l'atrons of this $p$ lan, ns now presented to the public, its praeticability and effieney has been tested on $n$ amall seale, and has obtained the approval of nnutienl and scientific men, the best nble to decide on its merits.
lesides the vast snving in the cost (tell thousand pounds expended by this plan being more (ffective than ten hundred thousand by stone Breakwaters) this Flonting IBreakwatcr possesses many adrantages of inculculable superiority over all others. Such as the very short sjuce of time requisite for its construction, four or five months being amply sufficiont. Its loing made in sections, also, renders its repair at nny 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 fiffern years; and then, should repair of any "part becoue necessary, the old material will always realize one half its original cost.

It also prevents the aconnulation of mad and sand, and their injurions consequences to harboirs und chamels, which it is too well known are the constant defects caused hy all stone llreakwnters.

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

That the Government of this country will avail itself of the ready means which the facilities of this invention afforl, to effect works of such paramount importance, (whieh it has hitherto been deterred from undertaking solely because of their apprehended immense cost), there enn be little or no doubt. Tho increasing necessities of commeree will also secure its nuloption by the corporations of maritime places, which have leretofore 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 trifing expence, old harbours, readering 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 searcely a single port in the united kinglom which will not avail itself of the bencfit now presented by having some sections of the lreakwater 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 nccommolution afforded, trade has invariably risen at an extraordinary rate, and the harbour dues have nlso in like manner as rapidly and pregressively incrensed, ns the following extract from those official returns prove:-

| tiserpool. | $\begin{gathered} \hline 1600 \\ c 10,037 \end{gathered}$ | $\begin{gathered} 1 \times 40 \\ 2: 23,378 \end{gathered}$ | $\begin{gathered} 1810 \\ c+45,-5 *: \end{gathered}$ | $\begin{gathered} 1820 \\ c 94,112 \end{gathered}$ | $\begin{gathered} 182.3 \\ \mathrm{f} 12 \mathrm{~N}, 690 \end{gathered}$ | $\left\lvert\, \begin{gathered} 1 \times 30 \\ t 151,330 \end{gathered}\right.$ |  | $\begin{aligned} & \text { Increased } \\ & \text { in } 40 \mathrm{Y} \text { eare } \\ & \mathrm{c} 122,943 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vilasgow. | $\begin{gathered} 1915 \\ \text { c5.900 } \end{gathered}$ | $\begin{gathered} 1 \times 201 \\ c a_{r} 2 \times 1 \end{gathered}$ | $\begin{gathered} 1826 \\ \mathrm{c} 10,3 \mathrm{OH} \mid \end{gathered}$ | $\begin{gathered} 1 \times 30 \\ c 210,000 \end{gathered}$ | $\begin{gathered} 14,35 \\ c 33,000 \end{gathered}$ | 1830 |  | $\begin{gathered} \text { lucreaved } \\ \text { in } 21 \mathrm{Y}_{\text {cara }} \\ E 31,100 \end{gathered}$ |
| thandee | $\begin{aligned} & 1 \times 16 \\ & \text { C } 1.409 \end{aligned}$ | $\begin{gathered} 1 \times 2 \mathrm{a} \\ \mathrm{c} \%, \kappa \Leftrightarrow \theta \end{gathered}$ | $\begin{aligned} & \text { IN.30 } \\ & \text { C11,0NO } \end{aligned}$ | $\begin{gathered} 1 \times 34 \\ {[8,5001} \end{gathered}$ | $\begin{gathered} 1836 \\ C 12,000 \end{gathered}$ | $\begin{gathered} 1 \times 37 \\ \text { E, } 15,1000 \end{gathered}$ |  | $\left\lvert\, \begin{gathered} \text { Increased } \\ \text { in } 21 \text { Years } \\ \mathrm{f11,201} \end{gathered}\right.$ |

The following is the number of vessels leblonging to dillerent nations, which passed the Lizarit I'oint in the conrse of 11 single year, English $\mathbf{1 5 , 0 0 0}$, American and l'reuch $\mathbf{3 , 1 5 0}$, Wanes nud Sivedes 1000 , I'russians aud Norwegians, Dutch, and Russian 1000, Spanish, I'ortuguese and others 500, making n total of $\mathbf{2 0 , 6 5 0}$ vessels; and taking the averuge to be ten men to every ship, gives the number 20N,500, and of thear vessels 15,000 (with 150,000 souls on board,) pens the laud's cud every yeur, some making nore than one vogage; and it is ascertained that npwards of 500 vessels are aunually wrecked on our coasts, causing a loss of life of 1,200 mariners, and of property to the amonnt of $\mathbf{£ 3 , 0 0 0 , 0 0 0 \text { . } . ~ . ~ . ~}$

Were harkours and phaces of refuge forment, as contomphated by this Company, this dreudful calamity would, it is obvinus, le in great part averted, and the fearful sarrifice of life an: 1 property would be greatly diminished.

The result to the Shareholders on the emphoyment of the Company's worka and means in such a meritoricos canse, cannot fail to enkure a return in a precusiary pritut of view, which will far exceed the mott

 mont suceresfully and profitally be "xtemoled to various other important objects, of minor, though scurcely less us.ful jurpmen, sheh ne the protertion of embankmeute, fortifications, piers, mill-dams, bridges, \&e, which are now "xpamed to the unresinteel fury of the sen ; vewsels on Alare, ean also be protected from further damago by mowring sections of the Hreakwater near them. The prevention of the sea's encroachment on lowlands subject (1) its risitations, will alan form in material feature of the utility of this insention, and ita nuplication in aid of "ןkration for regaining lands from the watery element, will wensibly diminish the expense of such undertakiug. Its use will also be uppreiated in sceuring the sufe landing of passengere, ind gookls by the steamers nut other vessela, und grently tehd fo increase our fisherica, by affording at a very monderate outlay security to und fishing craft, and protection to the meriourims and haty fivherman, whose daty expowire and exertions hase wuth preseing claime on every fiemel th hamanty

3reakwater to be e forms of these leep waters they and dock gates as now presented the approval of
plan being more ses many advan. site for its conders its repair at fidently asserted t beconie necess-
nices to harlouirs ters.
not only none at
1 the facilities of en deterred from t. The increasces, which have le.
ing expence, old renoving mud ere is scarcely a by having some $s$ being so great ; ed, or increased e harbour diles m those official
ssed the Lizaril a sivedes 1006, a aking a total of 10 , and of theso han one voyage; a loss of life of
is dreadful calavould bo greatly
means in such a exceed the most
 principle can gh scarcely lese , \&e, which are ther damage by ow lands subject ication in aid of of such underby the steamers thay security to cand exprtions

The limits of a l'rospectus will not admit of further exemplification of the numerons advantages of this invention, or of the useful purposes to which it can be successfully made applicable; suffice it to say, that it is quite apparent so grent and national an undertaking, ean only be taken up through the medium of a Company possessing an adequate capital, with the requisite nautical talent, to ensure the construction und general adoption of the Floating Breakwater, on a scale commensurate with the urgent wants of the nation and the public service.

The following is a summary of the objeets to which this Company will direct its procecdings.-
1st. They will contraet with Harbour Trustees to form harbours upon the principle of this invention, and to construct and improve landing places, jetties, \&c. either for a specific sum or upon a participation of the harbour dues.

2nd. To lay down the same on an annual payment, to be settled with the corporations or inhabitnnts of the place requiring it.

3rd. To furniwh sections of the Breakwater for various purposes.
4th. To forming new harbours where authorized, receiving the income arising from entranco dues, pilots, protection, \&e.

5th. To contract with Government to supply for specified sums or annual payments, a given quantity of berthage for auchorage and protection of steamers, revenue and other vessels of war.

6th. To afford protection in fishing places to fishermen, and small coasting vessels, at a certain agreed rate.

7th. To provide sections of the Breakwater for the protection of vessels when on shore, so as to prevent their total destruction or further damage by the action of sea, participating in the salvage returns or receiving other ronumeration to be agreed on.

8th. To lay down Breakwaters or sections thereof, to secure and protect embankments, fortifieations, picrs, mill-dams, bridges, landing places, \&c.; or to protect the oncroachments of the sea, for fixed sums.

9th. To form floating bridges, also floating piers, rising and falling with the tide, and ensuring safe landing at all periods of the ebb and flow.

10th. To provide Breakwaters for the regaining lands from the sea, either for a specific sum or a participation in the advantages to be derived from what is to be regained, at the option of the Company.

Ilth. To grant licenses to capitalists and municipal corporations for the erection of the "National Floating Breakwater."

It ia calculatod that the ineonit arising from the above various heads of profits will be amply sufficient to ensure a large annual dividend to the shareholders, while the principles upon which this Company will art, in its various operations, will preelude all liability of risk or loss to the shareholder, as no shareholder will in my event be liable beyond his subscription, and no calls will be made except for the purposes above specificd, and caro will bo taken to obtain sufficiont security for the ontlay of funds, and the return of a remmerating rate of interest upon the expended capital.
A. contidenily expected, that not more what threecnth will cere te repuirets and no call to be for more than two pounds, nor at a less interval than two months.

Trustees will be named and the list of lirectors (in whose management the affairs of tho Company will be vested, filled up and published in a few days.

A general anmual meeting of the Proprietors shall be held in each year, to receive the report of the proceedinge and the audited accounts for the preceding year.

And for the security of the shareholders, a charter of incorporution or act of parlinment will be npplied for.

The following is an abstract from the Report of the Parlianentary Committee above referred to:-
" That from the Frith of Forth to the mouth of the Thames there is no Harhour, which in the atrict acHecptance of the term can be called an "Harbour of Refige;" that all are Tidal Harbours, and oaly acceasible at certain " times of the tide."

They ulso report, "That on the North West Consts of Wales, there is a great deficiency of Harbours of "/ Hefuge for shipe asiling to and from Liverpool."

They then recommead the formation of several herbours of refugo on the portion of the eoast, to which ${ }^{\prime \prime}$ "their eaquiries extended, and from the evidence given, it is decided that a great many more are absolute necessary to " give the requisite security to our shipping.

They any, that it is "Of vast importance that every security should be efliorded to the very extensive "" eoasting trade of this part of Europe, particularly to that portion of it employed in the coall trade, and on which, the ,, regular supply and coneequeut cheapness of so necessary an article to this vast metropolis inainly depend; that this ", conatantly increaning demand, can oaly be regularly met by an uninterrupted interconse at all geasona of the year, , between London and the ports of exportation on the north coast of England, that the vasela no eagaged are during " many month of the year exposed to violent gales of on-shore wiads on an iron-bound cosst, to the great danger of life ", and property."

In thin evidence, the great lose of life and property on this coast from the want of harbours of refuge, is fully developed.


