

Observations in reply to the opinions of the Elder Brethren of the Trinity Houses of London, Newcastle, and Kingston-upon-Hull, contained in their several reports of the 8th February, 5th March, and 9th April, 1813 ... on the plan submitted to ascertain 'the real merits and benefits of a general establishment for the preservation from shipwreck' / [George William Manby].

Contributors

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THE HOUSE OF COMMONS

1813

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OBSERVATIONS,
IN REPLY
TO THE

OPINIONS OF THE ELDER BRETHREN
OF THE

Trinity Houses
OF

LONDON, NEWCASTLE, and KINGSTON-UPON-HULL,

CONTAINED IN THEIR SEVERAL REPORTS,

OF THE

8th February, 5th March, and 9th April, 1813,

(Transmitted to Lord Sidmouth,)

On the Plan submitted to ascertain "the real MERITS
" and BENEFITS of a General ESTABLISHMENT for
" the PRESERVATION from SHIPWRECK ;"

WHICH WERE

Ordered to be Printed, by the HOUSE of COMMONS, 7th Dec. 1813.

THE HOUSE OF COMMONS

1813

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OPPORTUNITY having been afforded me of perusing the Reports of the Brethren of the Trinity Houses of London, Newcastle, and Kingston-upon-Hull, submitted to Lord Sidmouth, on the apparatus proposed by me for preservation from Shipwreck, I am filled with equal surprise, and regret to find the two former of these Societies, unfavourable to the design of it's general establishment. I am so fully aware of the weight of the opinions of the persons forming these societies, on a subject, closely related with the purposes of their institution and maritime affairs, in which they have been for the greatest part of their lives conversant; that, if my own reputation and interest were the only sufferers from their opinions, I should, notwithstanding my conviction of their incorrectness, submit to them in silence. The difficulty of contending against the sentiments of men, supported by the maxim—*cuiusque de arte sua credendum est*;—and a sense of the wide benefit that results from entire confidence in persons, filling the important offices of the Brethren,—a confidence, which should not be shaken by the exposure of an error in judgment, when nothing, but my individual advantage, is in the other scale, would have held me back from attempts at refutation. But, deeply impressed, as my mind is, by repeated instances of rescue from shipwreck, of the infallible adequacy of the apparatus to it's design; and it's consequent importance to the country, (compared with which, considerations for the Brethren of the Trinity Houses diminish and disappear, as much as my own interests in consideration with the Brethren): I feel, that I should compromise my conscience, and desert my duty, if I did not assert the utility of the invention by facts, and reasonings drawn from them, against which the objections of the Brethren, cannot, in my humble yet firm opinion, be maintained. Actuated by this motive, (which, I trust, will at the same time be admitted to excuse any abruptness, and irregularity in the mode—(the only one suggesting itself to me,) which I have adopted, of laying my sentiments before those, who will ultimately decide on the question, I shall proceed to remark on the Reports of the Brethren:—And first, as first in order, on that of the Brethren of the Trinity House of London.

The first paragraph, that demands notice, is this:—"The Brethren are still doubtful, whether it would be practicable to project a rope over a stranded vessel in a storm of wind, blowing upon the shore, even when the vessel lies within the actual range of the mortar. The experiments made in general, having not been during a gale of wind or hurricane upon the coast, except in a few instances."

With submission to the Brethren, it appears to me, to admit of no doubt, that, if the shot, with the appendage of the rope, might be projected against a hurricane in a few, which they admit, it might be projected in any number of instances: but the question is instantly determinable. The force of the wind in the heaviest storms, to the velocity of the ball, fired with the rope attached to it, from the mortar, is only as one to fourteen.—The possibility of projection is now a conclusion within any capacity. Difficulty in casting the line, carried out by the ball, over the vessel, never arises from the opposition, however strong, if the wind is blowing directly on the shore. The utmost direct resistance of the wind is surmounted by a proportionate increase in the charge of powder. The only difficulty (a difficulty not foreseen by the Brethren) has arisen, when the wind has blown transversely, and has hurried the rope to leeward of the wrecked vessel; but this, too, is easily overcome, by pointing the mortar in a proportionate degree to windward; and the knowledge of the proportionate direction is as soon, and instinctively acquired, as that judgment of the distance, at which a fowler takes aim before a bird, that is flying rapidly across him.

In their next paragraph, the Brethren observe, that, "admitting the possibility, in tempests upon the coasts, of throwing a line from a mortar over a stranded vessel," (which it is strange the Brethren should have ever questioned,) "it is still to be considered, that it could be done only in cases where the vessel lies within a quarter of a mile of the shore." "In all those places, therefore, where the shore, from its flatness, does not admit of a vessel being cast within that distance, the plan must be ineffectual for gaining communication between the stranded vessel and the shore." What is there in this objection, but, that the invention will not be efficacious under circumstances, in which it's efficacy has never been proposed?—(the paragraph continues,) "unless by means of a grapnel to be thrown out, so as to assist in hauling off a Life-Boat or other boat through the surf, as first proposed by Captain Manby. But this part of his original plan was afterwards abandoned by Captain Manby." Certainly it was; on the conviction of it's inefficacy, after various experiments; an abandonment, which affords an inference, (if, in the midst of so much proof, inferences were required,) of the efficacy of those parts of the apparatus, which I have retained.

"It is therefore only in some particular parts of the sea coast, that the project of throwing a line could be accomplished, and those being of limited extent, the situations in which the apparatus would be applicable to afford relief, are likely to be but few." The Brethren have assumed, that, but a small portion of our coast is of a nature to admit shipwreck within so short a distance, as a quarter of a mile off the shore: the fact is notoriously otherwise. The greatest part of the coast of Norfolk, and much of almost every other maritime county, is of this description.

In a subsequent part of their Report, the Brethren instance New-Biggin, as one of these few "particular parts" "which appears, unquestionably, a proper place." The propriety of New-Biggin, as a station for the apparatus, the Brethren allow on the evidence of my Report to Lord Sidmouth; and yet, rejecting the *same evidence* of no fewer than thirty-eight other places, in six counties alone, draw the conclusion, surely an arbitrary conclusion, that "the situations, in which the apparatus would be applicable to afford relief, are but few."

"Here it may be proper to remark, that the concurrence of many circumstances is requisite to the success of the means proposed, viz.—That the ship be stranded within range of the mortar;—that the apparatus be near at hand, or, if not on the spot, there be ready means of transport and assistance for bringing it up;—that it be in proper order and condition;—and that there be persons sufficiently skilled ready at hand to direct it's application. All these circumstances must concur to ensure it's success, and the absence of any one would render the rest unavailing." It may be said of every useful instrument in life at all complicated, that the absence of any one of it's own parts or adventitious circumstances will render it useless. In conversable terms, then, what is this proposition of the Brethren? but, that the ship must be within reach of the shot, or the shot will not reach it;—that the apparatus must be there, or it will not be present;—that it must be fit for use, or it cannot be used,—and that persons must know how to apply it, or it cannot be applied. In the same spirit, it might have been premised, that there must be water, before there can be navigation; and navigation, before there can be shipwreck: For, it is only in the romance of Don Bellianis, that a vessel can be cast ashore on Bohemia. After relating, in detail, all the concurrences necessary to give operation to the apparatus, (a mode, by which an unfavourable idea of complexity is excited in the mind,) the Brethren should have shewn, that these concurrences were improbable; and, for that purpose, they would have shewn, that a very small extent of the coast is of a disposition to admit of shipwreck, within the range of the shot, carrying out a rope from a mortar;—they should have shewn, or at least attempted to shew, that but few shipwrecks occur under these circumstances;—they should have shewn, that the apparatus is so heavy, as not to admit of transport from place to place with facility;—that it's component materials were very liable to decay, and derangement;—it's structure intricate, and it's use unintelligible. But without attempting to establish any one of these positions, (the reverse of every one of which is the fact,) after repeating a list of requisite coincidences, not one of which on the face carries any appearance of improbability, they leap with a most violent elipsis to the conclusion, that "no national or public establishment can be formed with any prospect of advantage, relative to Capt. Manby's plan of stationing mortars, at particular places, along a great extent of the coast, for the purposes proposed in his Report." And yet, immediately after, the Brethren declare, that they coincide with the Brethren of the Trinity House, at Newcastle, in the opinion, that "it would be expedient to encourage local associations or communities of the inhabitants, in the neighbourhood, for the purpose of providing, preserving in good order, and managing such apparatus, as they may think adapted to their respective districts, and circumstances." With great submission to the Brethren, there seems not to be the slightest difference in fact, between encouraging the adoption of the apparatus by communities in the vicinities of the dangerous parts of the coast, and the institution by a public establishment; and, therefore, while they deprecate the latter in the term, they recommend it in the phrase.

The Brethren proceed to observe, that "it has been their object to gain information, of what success attended the trials hitherto: but, they do not find any authenticated cases, in which the project has proved successful, except the few recorded by Capt. Manby in his Publication, being about six in number; two of which appear to have been effected through the means of a boat being hauled off by a line."

"But the Brethren would beg to suggest the expediency of having a *bonâ fide* return made, as to the result of the trials in the several cases of shipwreck in which the apparatus has been applied."

I most sincerely rejoice, that the authenticity which the Brethren attribute to the six cases—(a less desultory perusal would have discovered seven*)—which I have introduced in my Publication, saves me the pain of supposing, that the recommendation to Lord Sidmouth of a *bonâ fide* return of the number of successful cases, contains the most oblique insinuation of misrepresentation in me. Those cases are related and witnessed by the most respectable names;—by Capt. Curry, and Lieut. Dennis, of the Navy;—Mr. Reeve, junior, of Lowestoft, and the rescued Masters, and Crews of the vessels themselves.

There would, indeed, have been something most Quixotic in the belief, that cases, thus attested, were fictitious; and that my individual reputation, and interest was the object of so wide a conspiracy. Most happy should I have felt myself, if to these cases I could have added that of the Sloop lately lost, with the whole Crew, near Wells, in Norfolk†; which (if it be just to argue from success in one instance to success in another, under exactly the same circumstances,) I might have done, had the place, which had been strongly

* See Lecture, published by ASPERNE, Cornhill, pp. 16. 23. 24. 41. 45.

† A mortar and stores were applied for, for this station, with others on the eastern coast, 25th Sept. 1813.

recommended as a station for the apparatus, been supplied with it. I could have produced thirteen cases of preservation from Shipwreck, which no other means would have effected, on the coast of one county alone: but why should I hazard wearying attention, without increasing conviction, by calling an endless train of witnesses to the same point. I thought, seven successive instances were sufficient to prove, that the preservation was a consequence, and not a coincidence;—if it succeeded seven, why should it not succeed seven hundred times? Nothing but the recency of the preservation of a Crew near Yarmouth induces me to give it a place here.—

“Signal Station, Yarmouth,
“12th March, 1814.

“Sir,

“I here send you a statement of the happy means that you have brought to such perfection, in saving shipwrecked Mariners. On the 20th of January last, about half past six A. M. I was informed that a vessel was on shore at South Ham, in Corton Bay, which place I immediately proceeded to, with the mortar under my charge, about *three miles from my station, it then blowing very hard from N.N.E. dead on the shore with drifting snow.* At the time I got to the place it was near high water, and the sea was breaking some height up the cliff, which made it impossible for any boat to render the distressed vessel any assistance: at this time her main and mizen mast was gone, and her boats and spars was washed all off her deck, and her rudder unshipt; and in her rising and falling, the head of the rudder was ripping her stern and decks up all to pieces, and the sea was breaking violently, quite over the vessel; and there was every appearance of her soon going to pieces. If she had parted, there was not the least hopes of the Crew being saved, but by the means I made use of before she did; and I had the satisfaction, in firing the second shot, from the top of the cliff, in throwing a line over the vessel:—I suppose the vessel was full two hundred and thirty yards from the cliff:—to which line, on signs being made to the people to haul a sufficient quantity on board, for the bite to return to the shore, they then made a hawser fast to it, that was fortunately laying abaft. As soon as the people on the cliff had hauled the said hawser on shore, and taught from the vessel, I cut a piece of the hawser off, and made a grummit on the hawser with it, sufficiently large for a man to sit in, to which I made the bite of the line fast to it: on waving to the people on board, they hauled the grummit along the hawser to the vessel, and one man got into it at a time, and was hauled on shore hanging on the hawser; and the grummit was hauled to the vessel again, by which method, *the whole of the Crew, consisting of Five Men and Two Boys, were saved.* And it is my opinion, that the Mortar is the only means that can give immediate Relief to Shipwrecked Mariners.

“CHARLES WOODGER, Lieut. R. N.”

The Brethren have remarked, that in two of the cases reported in my Publication, the preservation “appears to have been effected through means of a boat being hauled off by a line.” Certainly:—*but by a boat, hauled off from the shore by a line, thrown over the ship with the shot from the mortar; when no other known means on earth would have effected a communication.*

The next paragraph of the Brethren regards a plan, which I proposed, for giving unimmersedness to common boats.

“With regard to Capt. Manby’s suggestion of affixing air kegs in boats, the Brethren do not approve of it: as they think that the boat, by this method, though rendered more buoyant, would be very likely to upset.”

Deferring only to the conviction of reason, rather than to the opinions of the Brethren, I am yet compelled to observe, that the sentence of inutility, which they have thus pronounced, is a conclusion from wrong premises. The boat, while it is no more immersed, than when used in fine weather, and on smooth water, on ordinary occasions, so far from being rendered more, is rendered less buoyant by the kegs filled with air. The air within them is not lighter than the atmospheric air; and no difference of gravity is, therefore, occasioned by it; while the kegs themselves add to the weight of the boat; and, however insensibly, yet certainly, decrease it’s buoyancy; and, as a proportionate weight is added to the keel of the boat, the centre of gravity remains unaltered; and, consequently, the liability in the boat to upset is not in the smallest degree increased. It is under extraordinary circumstances, when the boat is to be used, as a life-boat, and is washed over by the waves which leave it filled with water, that the kegs operate in increased buoyancy;—But is it now, that the Brethren suppose the liability to upset increased? From a well known law of nature, the kegs of air in the upper part of the boat, lighter than the water, strive to ascend in constant resistance to the keel below, which, heavier than the water, strives to descend; and, by this opposition, a perpendicular is preserved. It would be as easy to upset the boat, thus immersed, as to make a spline, that heavy with lead, at one end, was dropped from a height through the air, fall on the end, that was not loaded.

On my suggestion, of laying out two anchors, with a rope, supported by a buoy fast to each, over which a barbed shot, from the mortar, is to carry the line, by which, in the face of the most violent storm, the life-boat may be hauled off to proceed to the assistance of a vessel aground at a distance; the Brethren observe, that, "when the life boats are established, an anchor and a hawser laid in from the offing would be more effectual in getting the boat off, than that of the chance of a shot being thrown at the end of a line over a hawser between two anchors parallel to the coast."

This remark either supposes me very dull of apprehension, or so infatuated with the love of machinery, that I despise the simplicity of any process by hand. I am not, however, reduced to this alternative. Even against this opinion of the Brethren, I can oppose the experience of fact. It was very much the desire of Admiral Russel, when he commanded at Yarmouth, to preserve uninterrupted, even by the most stormy weather, the communication between the ship, which bore his flag, in the roads, and his residence on shore. For this purpose, that a boat might be hauled to the point, at which the deep water begun, an anchor was laid out with a hawser two hundred and fifty yards in length, reaching to the shore. It lay some days before occasion called for it's application, and was then found, so bedded in the sand and shingle, that the utmost efforts of many hands could not disengage more than a few yards of it, of which no use could be made: and, therefore, this scheme, so specious, so unobjectionable in the proposition, was abandoned. The same experiment was made at Lowestoft, by the Committee, for the purpose of getting off the life-boat, and produced the same result. On the other hand, my suggestion (which the Brethren call "a chance,") of throwing a barbed shot, with a rope attached to it, over the buoyed hawser, connecting the two anchors, has been approved, by men best able, from their habits, to judge of it's utility; which opinion is at least in it's favour, an opinion justified by fact; for of numerous experiments not one has failed.

"Lowestoft, 17th July, 1810."

"We, the undersigned, Pilots and Beachmen, of Lowestoft, hereby certify, that
 "We, this day, tried the effect of firing a barbed shot from a five and half
 "inch mortar, with an inch and half line attached to it, over a rope moored
 "between two anchors, suspended in the middle by a buoy, to prevent it's
 "beaching. When at a distance of one hundred and thirty yards from the shore,
 "and with four ounces of powder, it was thrown over, and caught the rope.
 "With eight ounces of powder, the shot was carried fifty yards beyond the
 "mooring, and at the same time caught it: and with a heavier shot attached to
 "a two and half inch tarred rope, belonging to the Lowestoft life boat, it was,
 "with sixteen ounces of powder, carried over, and again caught the mooring
 "rope. We do, hereby, declare it to be our opinion, that, if a mooring rope
 "and anchors were laid down on the Lowestoft coast, and at other places, where
 "boats are wanted to be launched off an open beach in bad weather, it would be
 "of the greatest service to the shipping interest of this country, as well as of
 "rendering assistance to shipwrecked mariners; and that a two and half inch
 "rope is of sufficient strength to haul off the largest class of pilot boats in the
 "worst weather, and would be of the greatest service to the life-boat stationed
 "at this place."

Signed by Twenty-two Pilots and Beachmen.—(See Lecture, p. 54.)

The Brethren assert, that "the information, collected on shore by Capt. Manby, respecting the navigation in and about the Fern Islands, and Cocquet Island anchorage, will, they apprehend, add little to the knowledge of the mariner."

The Brethren of the Trinity House of Kingston-upon-Hull coincide with the Brethren of London.—"As to what respects Cocquet Island, this Committee observe, nothing is said, in Capt. Manby's Report, but, what is known to all Masters of coasting vessels."—"As to the roadstead, mentioned in Capt. Manby's Report, under the Fern Island, the Committee cannot see any thing more than what is laid down in the charts." By the side of their opinions, I shall only place the answers of Admiral Otway, Commander in Chief at Leith, and Capt. Buckle, his Flag Captain, to letters which I addressed to them with information on this subject.

"I think it very desirable, that you should send a sketch of the Fern and Staple
 "Islands, with the new discovered shoal off the latter, and an account of the
 "Anchorage you recommend, to the north-westward of the great Fern Island;
 "to Captain Hand, Hydrographer to the Admiralty."

6th January, 1813.

"Wm. A. OTWAY."

"Your little Chart of the Staples, brings to my recollection the accident that
 "happened to the L'Amiable in 1810, when she struck on the outer edge of the
 "Staples, and was docked in Brunt Island in consequence, where a large piece
 "of

"of Rock was taken out of the bottom of the ship. Admiral Otway, at the time, sent me her Log, from which I worked her course, and layed off, what I supposed her track, on two of my Charts, in pencil; which lines are still there, and so very near the Shoal you appear to have discovered, that I think it more than probable, the L'Amiable struck on the identical Rocks, which you have mentioned, and which do not appear in any Chart.

"I cannot refrain from saying, I think you ought not to lose any time in acquainting the Admiralty with this new Nearstone, that they may take such steps as they may judge proper.

"Adamant,
"Leith, March 9, 1813.

"MAT. BUCKLE."

"The Bell, proposed by Capt. Manby to be fixed on the Brown'sman, cannot, in the opinion of the Brethren, be of any utility."

Report of the Brethren of the Trinity House of London.

"The Committee approve of Capt. Manby's recommendation of a Bell on the outermost of the Staple Islands, to be used in foggy weather," and think, it might be the means of saving ships from driving on the islands."

Report of the Brethren of the Trinity House of Kingston-upon-Hull.

"We think a large Bell, placed in the situation recommended by Capt. Manby, and worked in the manner he describes, or by some other mechanical device, which will not require fuel, would be of service in foggy weather."

Report of the Brethren of the Trinity House of Newcastle.

The opinions of the Brethren of the Trinity House of London, and the Brethren of the other Houses, are, on this point, in direct opposition. They cannot both be right. Where there is certainty of error in one instance, there is possibility of error in more. The idea of infallibility on subjects, even most within their experience, is disturbed, and the opinions of the Brethren are no longer to be deemed decisive, without examination, and argument against them hopeless. I shall only add to this remark, the expression of my most anxious hope, that I have given no offence to the Brethren by my observations on the navigation amongst the Fern Islands and Cocquet Island; which I was led to make without any design of encroaching on their peculiar province; and have published with equal innocence, of the most oblique reproach of negligence.

The Brethren of the Trinity House at Kingston-upon-Hull give their approbation to my plan of rescue from shipwreck, on conditions, so easy of performance, that my most eager wishes, springing from the conviction of its utility, had not anticipated a more favourable sentence.

The objections of the Brethren of the Trinity House at Newcastle are not substantially different from those of the Brethren of London. The former, therefore, can only be of force, if I should be supposed not to have answered the latter: Yet I should be glad to gain attention to a few remarks on the difference of the mode which the Brethren of Newcastle have chosen to convey their objections.—

"We should be sorry to advance any thing, to discourage or undervalue the exertions and endeavours of a meritorious individual in his designs to benefit the public in a matter of such vast importance; but, though we justly acknowledge and applaud the ingenuity, and merit of applying an engine of destruction to the most important, and humane purpose proposed, and really confess, that its application will be almost infallible in some cases; yet, conceiving it to be our business to examine the premises in an extended, and general view; that is, as a practical system, which may be rendered generally or widely efficient for the end proposed, we cannot, at present, perceive much benefit is to be expected from it."

Report of the Brethren of the Trinity House at Newcastle.

The Brethren of Newcastle in this sentence have accidentally used a figure of rhetoric, of which an example has been given, and commented on with great force by a deep judge of human nature:—

Incolumis lætor quod vivam in urbe;
Sed, tamen, admiror, quo pacto judicium illud
Fugit.

Its influence on those who are not aware of the arts of language is irresistible. The criminal must be atrocious in the extreme, on whom the most mild and merciful judge, inflicts the utmost severity of punishment. A useless incumbrance indeed must the apparatus be, to extort from persons, so anxious to favour me individually, so averse to discourage, any project, that may incidentally produce the slightest public benefit, a sentence of condemnation.

But,

But, when I consider by whom this style is used, and to whom it is addressed, I am convinced, that there is neither intention nor effect; and I should not have taken any notice of it, if I had not determined to pass no part of these Reports without observation.

The next remark of the Brethren of Newcastle is, "that were shipwrecks always or frequently to occur on certain known spots, where mortars with their complete apparatus, as described by Capt. Manby, might be stationed, and kept in good order; and a few persons skilled and practised in their use, ready at or near the scene of distress; and the distance of the wreck within reach of the shell to be discharged from the mortar; the certainty of the benefit would be evident: for it is obvious, that, by means of a rope attached to a shell, and so conveyed to the vessel on shore, the lives of the crew may be saved, when other means are impracticable."

That shipwrecks do not *always* occur on *certain* spots must be conceded to the Brethren. The power that could so confine them, could altogether prevent them: but, that the Brethren should think the *frequency* of shipwreck in *particular* spots hypothetical, must, I think, fill every one with the same surprise, that, on reading it, affects me. I thought, that every maritime person knew, that there were certain points of the coast infamous beyond any others, from the great frequency of shipwrecks.—Such, (I say it with little fear of contradiction, and none of reputation,) for example, are Flamboro', Redcar, and Cortham, in Yorkshire; Yarmouth, Winterton, Happisburgh, Mundesley, and Blakeney, in Norfolk;—and each of these places admits shipwreck under the aggravating circumstances of the shore and safety within a few yards, and yet, 'till the introduction of this apparatus, so hopelessly distant.

If shipwreck were frequent at given points, that admitted them within certain distances of the shore, the Brethren of Newcastle allow, that the process of the apparatus would be infallible. Shipwrecks are frequent at such points, and thus they have bound themselves, against their own assertion of almost total inutility, to subscribe to it's very extensive utility at least.

"But when we contemplate an extent of many leagues of coast, not one spot or peculiar part of which is exempt from becoming the scene of shipwreck and their concomitant disasters, and considering that, in such melancholy events, the utmost expedition and readiness are generally essential or indispensable; the difficulty, inconvenience, and delay of removing, and transporting a mortar, &c. along a coast, where, probably, no road exists; and that, when it is brought to the point intended, the operation of using it to advantage will be very uncertain, if not wholly ineffective, from the unskillfulness and ignorance of the only inhabitants in the neighbourhood, viz. fishermen and peasants, totally unacquainted with the management of such instruments; and farther, that the mortars, and their necessary accompanying materials will, in many instances, be for years deposited, in a state of neglect and decay; and, consequently, when required upon any sudden and pressing emergency, be found in a condition unfit for service.

"Duly weighing all these unfavourable circumstances, without noticing the considerable expence, which the execution of Capt. Manby's plan, to render it really efficient, would demand; we apprehend, no national or public establishment can be formed, with any prospect of advantage, relative to his plan of stationing mortars at particular places along a great extent of coast, for the purposes proposed in his Report."

In answer to this mass of objections, I observe, that, if, indeed, every league of coast, through the whole circumference of Great Britain, required the apparatus, the establishment would draw after it a consideration of expence, which might induce even the most eager humanity to pause. But, though the whole coast, in every league, is unexempted from liability to shipwreck, under general circumstances; yet, I conclude, from my actual survey of many counties, and an analagous calculation regarding the rest, that not more than two hundred parts of the coast are so disposed, as to admit of shipwreck under the particular and more fatal circumstances, in which the apparatus is the only mode of preservation. With this distinction, the expence shrinks into an amount, which even the least humane would not weigh against the policy, and benevolence of the design.

To the next objection, "*the difficulty, inconvenience, and delay of removal,*" I have to oppose the Report of a Committee of Colonels and other Field-Officers of Artillery at Woolwich, by which it appears, that the whole of a smaller apparatus, was carried by a man on horseback a mile and a third of a mile, dismounted, and the ball, carrying out one hundred and fifty-three yards of line, fired from the mortar in six minutes. The larger apparatus may be carried, with ease, by two men in a hand barrow, and, consequently, the smallest boat will convey it over any interposing creek or harbour. I declare, that I know no part of our coast, along which such a weight by such modes of transport is not to be moved.

I admire the facility, and apparent sincerity, with which the Brethren assume, the absence of due care and superintendence,—nay, the total abandonment of the apparatus to decay, the moment that it is established; and the utter want of instruction, or impossibility of

removing ignorance by instruction in the fishermen or peasants, whom the Brethren (putting an extreme case) suppose the only persons that are to be on the spot to direct its application.

But, surely, it is leaving reason to suppose, that there is to be no instruction given to those, who, nearest the depot of the apparatus, are to direct it. Little instruction will be necessary; for the simplicity of the invention will ensure easy acquirement. Nothing can vouch more strongly in favour of this simplicity, than the obstinacy, with which every one on its production allowing its merit, yet denied its originality. Nobody would believe, that what now seemed so plain and obvious in its use, had at this late day yet to be first applied,

"So easy it seem'd,
"Once found."

The fishermen and peasants at the places, where it is already stationed, (Yarmouth and Winterton,) understand and can direct its application. The novelty and importance of a process, in which (to borrow the elegant expression of the Noble President of the Society of Arts) an instrument, which had hitherto been only used for their destruction, is turned to the preservation of mankind, excites the most eager curiosity and the deepest attention. The expertness thus soon acquired, will soon be sufficiently communicated and retained; for what one knows, he will readily teach to others eager to learn; and knowledge, thus associated in the mind, is not easily forgotten.

The Brethren of the Trinity Houses of London and Newcastle, appear to have felt so assured of rejection on other grounds, that the expence to the Government, attendant on the adoption of the apparatus, though mentioned by them, is not urged. I deceive myself greatly, if this, however, is not the only objection now left them; and, I trust, with the help of a little calculation, to dislodge them from this also. I agree with the Brethren, (however our sense of dignity may be offended by the idea, however humanity may start back from it,) that even human life must be the subject of calculation; and, if the lives of a small number cannot be preserved, but at the surrender of the general convenience, the general convenience is to be preferred. But to each his own life is inestimable, and policy, as well as humanity, advises, that it should not be held in light value by others. On the coast of a single county† ninety-nine seamen have been rescued from shipwreck by the apparatus, during the last four years. Computing the other maritime counties of Great Britain at no more than twenty, and their contingency to shipwreck, under the peculiar circumstances, in which this mode of relief is alone efficacious, but in the proportion of one half to Norfolk, the number of lives saved, within the last four years, would have been one thousand and eighty-nine,—two hundred and seventy-two in each year. Two hundred and fifty of the apparatus, (the utmost number required for the whole coast of Great Britain,) at twenty pounds each, would make the cost of the original establishment Five thousand pounds. Superintendence and to maintain them in repair, would require fifteen hundred pounds annually. Is this I would ask the Brethren of the Trinity, a sum to be weighed; by a nation so wealthy, against the lives of so many of the promoters and defenders of its wealth? I am sure of their answer. If the apparatus be useless, discussion on it should never reach to the consideration of expence. If, on the other hand, on balancing their Reports with my Observations on them, they should change their opinions, and admit its indubitable adequacy to its design, they will never, by leaving this danger open, consent to the loss of so many lives; and with them, perhaps, the skill and courage, that might have been preserved to secure the defence or increase the glory of the country: they will not, by giving their voices against so important an establishment, from too nice a consideration of cost to the nation, resemble the parents, who, to avoid the burthen of their maintenance, expose to contagion the children, sent them, perhaps, by a Providence, which their blind parsimony disappointed, to be their support in the destined hour of indigence and affliction.

GEO. WM. MANBY.

London, 21st March, 1814.

† The Lecture, illustrated with explanatory representations, was published for the specific purpose of general instruction.

† Norfolk.

