An essay on the preservation of shipwrecked persons: With a descriptive account of the apparatus, and the manner of applying it / [George William Manby].

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#### **Publication/Creation**

London: Longman, 1812.

#### **Persistent URL**

https://wellcomecollection.org/works/k52gv84f

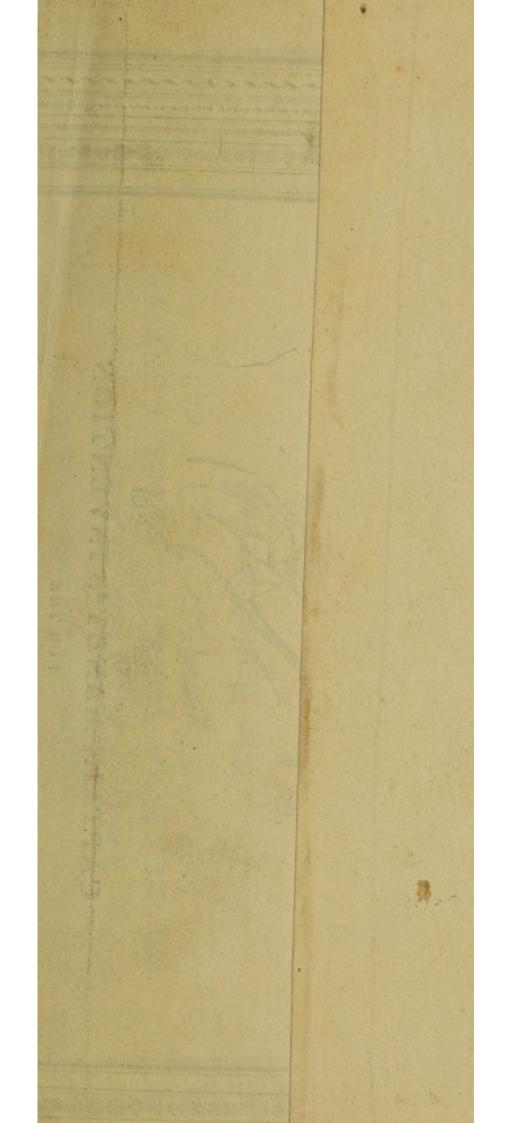
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CAPTAIN MANBY'S INVENTION

CAPTAIN MANBY'S INVENTION

TO THE PRINCE REGENT;

THE DUKES OF YORK, CLARENCE, KENT, &c.

THE DUKES

PUBLISHED BY R. ACKERMANN, AT THE REPOSITORY OF ARTS, 101, STRAND, AND MAY BE HAD OF ALL PUBLISHERS AND PRINTSELLERS IN THE UNITED KINGDOM.

## AN ESSAY

ON THE

# Preservation of Shipwrecked Persons.

WITH

A DESCRIPTIVE ACCOUNT

THE APPARATUS,

AND THE MANNER OF APPLYING 1T,

AS ADOPTED SUCCESSFULLY

BY G. W. MANBY, Esq.

HONORARY MEMBER OF THE ROYAL HUMANE SOCIETY.



1LLUSTRATED WITH ENGRAVINGS ON WOOD,

Drawn by W. M. Craig, and executed by J. Berryman.

## LONDON:

PRINTED FOR LONGMAN, HURST, REES, ORME, AND BROWN, PATER-NOSTER-ROW, AND 54, NEW BOND-STREET; AND JOHN MURRAY, PLEET-STREET.



1840

## JOHN CHRISTIAN CURWEN, Esq.

MEMBER OF PARLIAMENT

FOR

CUMBERLAND,

AND

VICE PRESIDENT OF THE SOCIETY OF ARTS,

MANUFACTURES, AND COMMERCE,

THE FOLLOWING SHEETS

ARE INSCRIBED,

BY

HIS OBEDIENT AND GRATEFUL SERVANT,

G. W. MANBY.

## PREFACE.

GRATITUDE alone would impel me to address these pages to Mr. Curwen, who has so independently patronized my humble efforts, and but for whose countenance and protection, I should yet have been without the power of accomplishing my task, did not other considerations induce me to dedicate to that Gentleman a work, the object of which is to promote the cause of humanity; a cause so ably asserted, and indefatigably supported by his generous and laudable efforts. It is, in truth, only a tribute of justice to this worthy representative of the people to declare, that if any good results from my exertions, all is due to his determined perseverance in advocating my cause, which has obtained for me the only means by which the object so near my heart has eventually been perfected.

For humanity's sake, it is greatly to be lamented, that my success in the present undertaking should owe an eye-witness to the total loss of many vessels, with all their crews, whilst stationed at Yarmouth as Barrack Master during several successive winters; a most welcome and handsome appointment presented to me by the present First Lord of the Admiralty,\* and for which my gratitude will always be due to him.

The dreadful events of the 18th of February, 1807, when His Majesty's gun-brig Snipe was driven on shore near the Haven's Mouth at Yarmouth, first made an impression on my mind, which has never been effaced. At the close of that melancholy scene, after several hours of fruitless attempt to save the crew, upwards of sixty persons were lost, though not more than fifty yards from the shore, and this wholly owing to the impossibility of conveying a rope to their assistance. At that crisis a ray of hope beamed upon me, and I resolved immediately to devote my mind to the discovery of some means for affording relief in cases of similar distress and difficulty. It is matter of no small consolation, when I reflect that my efforts were soon crowned with the happiest success, and have been already instrumental to the preservation of ninety souls from a watery grave, of

<sup>\*</sup> The Right Hon. Charles Yorke.

which seventy-seven were my Countrymen, and thirteen unfortunate Hollanders.

In the prosecution of my object considerable difficulty presented itself, viz. in the case of vessels grounding on a bar, when running for a harbour, as their only chance of safety; the broken water, by giving no resistance to the blade of the oar, prevents a boat from pulling up to the ship's aid, though within ten or twenty yards of her. My attention became here engaged in the construction of a small piece of ordnance for the purpose of projecting a rope from the boat so as to communicate in such circumstances with the ship. A small portable mortar was also essential, the better to ensure a prompt and effectual communication, at a period when each successive instant was big with the fate of an entire ship's company.

The dreadful event also of a Swedish brig, called the Wandering Main, driven on shore at Hasbro', in the night of the 5th of January, 1809, imprinted on my feelings the necessity of contriving a method of affording the same assistance at the more awful hour of night, when darkness doubles the danger, and baffles even the experienced navigator. It was on this lamented occasion, a dark and dismal night, when objects were scarcely discernible, that numerous unavailing attempts were made to project a rope to the

vessel by the means successfully used in the day; but its flight could not be observed, either by the persons on shore or those on board, and seven long and anxious hours elapsed before the light of day favoured the endeavours to effect the much-desired communication; when, at the very instant the cot reached the vessel, she went to pieces, and every soul on board perished!

The horrors of shipwreck at a distance from the land, a scene I had unhappily too often witnessed, suggested to me also the great benefit that must result from enabling a life or pilot boat to go from a flat beach with facility and certainty to the relief of sufferers. This observation was corroborated by the opinions of various residents on the coast, whose assurances gave evidence, too conclusive, of the many lives and immense property annually lost for the mere want of the means I have hinted at; the chief difficulty was, that no boat could be forced over a high and raging surf without some powerful artificial aid.

Among other desiderata that have grown out of my researches in this arduous and important work, there is one I presume to think of much worth. Boats in common, where occasion has required their being launched in cases of shipwreck, have often failed owing to their want of buoyancy and other properties of the life boat. I have devised a simple method of giving to every kind of boat these advantages, and at a most inconsiderable expense. Thus every vessel provided with a boat so prepared, would possess within herself the power of preserving the life of any person fallen or washed overboard in a high wind and heavy sea. And boats around the coast, by the same means, may be converted into efficient life boats.

The discovery that has last of all occupied my thoughts and attention, is by no means of the least magnitude; indeed it is likely to be attended with such valuable consequences to my country in every service, that it ranks highest among the productions I have the honour of submitting for public consideration. In the early stage of my inquiry, the intention was to secure a method of discharging a mortar with certainty in extreme wet and windy weather, which could not always be effected with the match; and when successful, it has often been attended with considerable difficulty and much waste of time. The mode proposed has most completely succeeded; and as this method of discharging a gun in the most violent storm, and under any circumstance of humidity, being without the aid of fire, promised to be of the very first utility to both the navy and army, I hope to make it hereafter the subject of an useful work.

Parliament having, in the most liberal manner, been pleased to countenance my undertaking, and by an ample allowance afforded me every encouragement, the entire coast of Great Britain, I hope, will ere long be guarded with this additional belt of succour for the unfortunate; and although, among the many unfortunate traversers of the ocean's deep, some poor shipwrecked souls may perish, I am not without the exhilarating hope of living to that day when my project shall be hailed as the seaman's best friend. And why may not the glorious cause of humanity be fostered on foreign shores? It would be heart-cheering, indeed, to learn that the invention of an Englishman had been adopted for the salvation of the shipwrecked in every clime, and on every coast. Surely it would not be too much to cherish the hope, that every landholder, of whatsoever nation, whose domain borders on the seacoast, will furnish himself with the blessed means, and hold them sacred to humanity's cause. If such of my countrymen, and of other nations, supply themselves with an apparatus, would not their labours be repaid with usurious interest, in extending an arm to such of their fellow-creatures as the raging tempest might drive helpless within their grasp? My pen falters in reverting to our late distressing shipwrecks; yet who can say that these very means of preservation, had they

been practicable, might not have saved to many a family a father, husband, brother, nay, all its fondest hopes.—But to dwell no longer on this heart-rending picture. Let every philanthropist provide himself with this pamphlet, and let each merchant and other vessel be furnished with the same, as explanatory of the method used on shore, by which all that is essential for the instruction of those on board, is learnt in five minutes: and I anticipate the day, when, by an universal patronage of this invention, and the countenance of Government, it will become eventually the resource of every nation.

But to return to the many advantages that may accrue from the mode hereinbefore suggested, of discharging guns without the use of fire. Independently of its high utility in naval and military service generally, and also in ensuring a certain discharge of the life-preserving mortar, when certainty of its discharge is every thing, there is another valuable advantage of which this new system has to boast, and one perhaps of equal importance with the preceding; it will prevent a recurrence of those dreadful accidents that so frequently happen on board ship in the heat of action, where the loose and scattered powder unavoidably spread over the decks, by taking fire, leads to the destruction of many valuable lives, and to a consternation among a crew

which is capable of producing the greatest calamity, and very worst consequences.

When the immense number of seamen who are computed to perish annually, and whose preservation I consider to come within the means of this application, are taken into consideration, it is reasonable to hope and expect a fair proportion will be rescued by the means proposed so soon as they shall be carried into general effect.

I think this ratio of human salvage may be justly insisted upon when it is shewn, that out of ninety-three persons attempted to be saved by my plan, only three were lost; and of those unfortunates two were incapable of self-exertion from insensibility, and the third unhappy man lost his life by his own temerity.

On one solitary day only, viz. the 10th of November, 1810, the crews of sixty-five vessels, wrecked on the coast of the North Sea, entirely perished, and within one hundred yards of the shore: their numbers were estimated at five hundred. It may, therefore, I repeat, be fairly reckoned, that at least five hundred seamen will every year be saved to the nation, exclusively of property incalculable in value.

As the professed object of this little essay is to give publicity to a code of instructions framed for the benefit of mankind, it is hoped to have some claim on the indulgence of the reader.

That my system may not be deemed purely theoretical, I have judged it expedient to support it by the introduction of authentic documents, in which are exhibited indisputable proofs of its practicability and success.

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## REPRESENTATIONS OF THE APPARATUS,

WITH

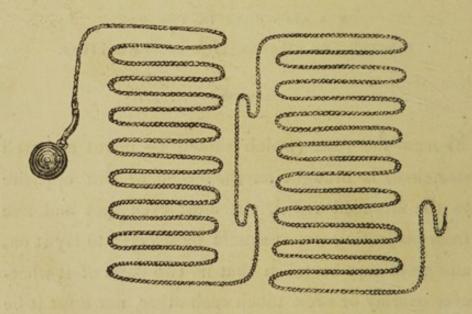
DIRECTIONS FOR USING IT IN THE ASSISTANCE OF
PERSONS ON BOARD STRANDED VESSELS
ON A LEE-SHORE IN THE DAY,
AND FOR THE PRESERVATION OF THEIR LIVES.

When the rope (which should be pliant and well stretched) is brought on the beech or cliff opposite to the stranded vessel, the most even spot and free from projecting stones should be selected to lay it on, and great care be taken that no two parts of it whatever overlay or even touch each other, nor must it be laid in longer lengths than of two yards. But to project a small line or cord, it will be necessary, if it is required, to contract the fakes to half a yard at most,

to avoid the jerk received at the end of each right line; the best method with such a description of cord, is to lay it on the ground in the most short and irregular windings, to relieve it from this powerful impulse. To prove the effect of the impulse on a rope, if it is faked in lengths of ten or fifteen yards, it will break each time, as it then becomes a most powerful pendulum. These precautions are absolutely necessary to the success of the service.

The following has, after various trials, been found a certain method of laying the rope, and placing it into compartments.

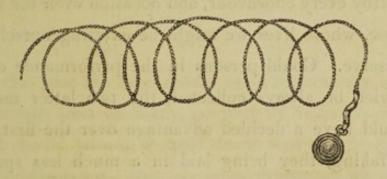
#### FRENCH FAKING.



A particular attention to this mode will never fail with a good rope, when the impediments are removed that might otherwise obstruct its rapid flight. Its advantages are, that it will allow the eye rapidly (yet correctly, just before firing, which is absolutely necessary) to pass over the different compartments, and at once discover if any fake has been displaced by the storm, or by any other casualty or accident come in contact with another part, which would destroy its application by the rope breaking.

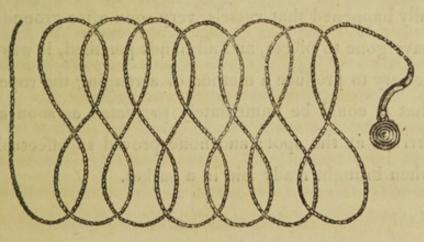
It may likewise be coiled in the manner used in the whale fishery.

#### WHALE LAID.



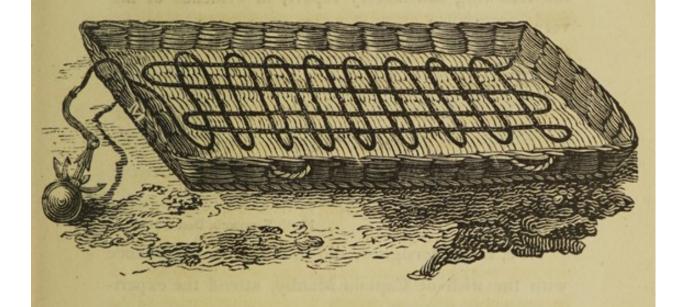
And in the following method.

#### CHAIN FAKING.



It is however necessary to add, that great attention is required in laying it agreeably to the two latter methods, arising not only from the wind being liable to get under certain parts of the rope, and thereby displace it, but from the great anxiety of mind natural on these occasions, where the lives of fellow-creatures are literally dependent on the correctness with which the rope is laid; it is therefore extremely difficult, in a moment of agitation, to determine whether any overlay has taken place, an error that would infallibly destroy every endeavour, and occasion even the fate of those, whose lives we might be exerting ourselves to preserve. Could persons in the performance of this service be always collected, the two latter methods would have a decided advantage over the first mode of faking, they being laid in a much less space of time.

As all these methods of laying the rope occupy time to place it with the care necessary; and as it has repeatedly happened that vessels, very soon after grounding, have gone to pieces, and all hands perished, it was necessary to produce a method of arranging the rope, so that it could be immediately projected as soon as it arrived at the spot; and none proved so effectual as when brought ready laid in a basket.



In this case the rope should be most carefully laid, in alternate tiers or fakes, no part of it overlaying, and it should be well secured down, that in travelling it be not displaced. But, above all things, no mistake must happen in placing the basket property. For example: that end of the basket from which the shot hangs in the above plate should be previously marked, as is here represented, and must be placed towards the sea or wreck, that the rope be delivered freely, and without any chance of entanglement. It will be scarcely necessary to add, there will be several tiers of the rope when laid. The utmost care and attention are required in laying the rope in tiers with strict regularity to prevent entanglement.

Perhaps I cannot do better than introduce here the following satisfactory report, in evidence of the very superior advantages of the basket, given under the hands of Naval Officers, upon whose experience and judgment no comment need be made.

### REPORT.

North Yarmouth, Dec. 4, 1809.

We, the undersigned, did this day, in compliance with the wish of Captain Manby, attend the experiment he made at Yarmouth, for the objects he stated to have in view, for a more certain and instantaneous application of a rope to vessels stranded on a lee-shore, than the system he had hitherto pursued and instructed the Sea Fencibles in, capable of being used from an UNEVEN BEACH, RUGGED ROCK, OR WHERE THE SEA WASHES FAR ON THE SHORE. A basket six feet in length, three in breadth, and four inches deep, containing a coil of inch and half rope, laid in alternate fakes, was brought in front of the mortar, and fired, with eight ounces of powder, 179 yards, without suffering the least check whatever in its flight. The mortar and basket (the rope ready laid in it) were then by our desire taken to the beach on the carriage, to be projected over the ship stranded a few days since, with the new constructed barbed shot to catch hold of the rigging.

It is our opinion, that the above experiments most fully answer the object intended; and too much cannot be said in praise of Captain Manby's unremitted perseverance in the cause of humanity, to render the object he has so long had in view as complete as possible, and for the obtainment of which he has spared neither expense or personal fatigue of body or mind.

## THOMAS SURRIDGE,

Captain Commanding Sea Fencibles.

## EDWARD BERRY,

Captain Commanding Sea Fencibles.

## RICHARD CURRY,

Captain of his Majesty's ship Roebuck.

## SAMUEL WARREN,

Captain of his Majesty's ship Bellerophon.

## JOHN HANCOCK,

Captain Royal Navy.

## WM. BEAUCHAMP PROCTOR,

Captain Royal Navy.

The method of affixing a rope to a shot, for the purpose of effecting communication, when projected from a piece of ordnance over a stranded vessel, was at length succeeded in, by introducing a jagged piece of iron, with an eye at the top, into a shell, and securing it by filling the hollow sphere with boiling lead; and in another way, by drilling a hole through a solid ball, and passing a piece of iron, with an eye to it, as before described, to the bottom, where it should be well secured by rivetting.

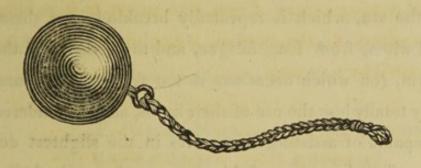
A ROUND SHOT, WITH AN EYE TO IT.



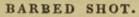
To produce the means of connecting a rope to a shot, and prevent its being burnt, and rendering it irresistible to the powerful inflammation of gunpowder, was the labour of infinite time, and the number of experiments to accomplish it is beyond all possible conception. Chains in every variety of form and great strength breaking, proved that it required not only an elastic, but a closer connected body. At length some stout platted hide, woven extremely close to the eye of the shot, about two feet in length beyond the muzzle

of the piece, and with a loop at the end to receive the rope, happily effected it.

A SHOT, WITH A PLATTED HIDE PROTECTOR.



This method is certainly desirable, as the rope may, immediately it is required, be affixed to the loop, and applied in service. The form of the platted hide may likewise be woven by twisting it in the manner that the lashes of whips or ropes are spun; there is another method, by passing the rope through a case of leather, taking the greatest care that it is so well secured at the eye of the shot, as to leave no room for the SLIGHTEST PLAY, as is represented by the following





Where the crews of the distressed vessel are incapable of availing themselves of the benefits arising from communication, they having previously lashed themselves in the rigging, to prevent being swept away by the sea, which is repeatedly breaking over them, and when, from long fatigue, and the severity of the storm, (on which occasions it too frequently occurs) they totally lose the use of their limbs, and are rendered incapable of assisting themselves in the slightest degree; the advantages of this shot are, that on its being projected over the vessel, and the people of the shore hauling it in, it firmly secures itself on some part of the wreck or rigging, by which a boat can be hauled to the relief of the distressed objects; and by the counter barbs it is rendered impossible to give up its hold or slip, while that part of the wreck remains to which it has secured itself. Among the many that have been saved by this constructed shot, the following are testimonials of a few of the cases.

WE, the crew of the brig Nancy, of Sunderland, do hereby certify, that we were on board the said vessel, when she was stranded on the beach of Yarmouth, on Friday morning the 15th of December, 1809, and

compelled to secure ourselves in the rigging, to prevent being swept away, the sea running so high over the vessel. And we do further declare and certify, that Captain Manby firing a rope with a hooked shot, securely holding on the wreck, enabled a boat to be hauled from the shore over the surf to our relief, otherwise we must inevitably have perished.

A. P. DIXON, Master.

R. ROBERTSON.

J. WHITE, Mate.

J. KNIGHT.

J. Lucн, Seaman.

T. JARRID.

I, Thomas Stoddart, do hereby declare, that I was Master of the brig Camilla, of Sunderland, and in her when stranded on the same morning, and near where the Nancy was driven, and did witness all the circumstances contained in the above certificate; likewise of Captain Manby's immediately after saving her people, coming to the relief of myself and crew. I do, therefore, in full justice and gratitude declare, that the invention of thus conveying a rope to shipwrecked mariners on a lee-shore, is of infinite importance to every maritime country; for, if generally known and used on the coasts, will save thousands of lives, from the conviction of what I witnessed on that day, as

the certainty of success will be, when all other efforts are impossible.

## THOMAS STODDART,

Master of the Camilla, of Sunderland, stranded on Yarmouth beach, 15th of December, 1809

## (COPY.)

Roebuck, Yarmouth Roads, 6th January, 1811.

SIR,

I BEG leave to state to you, for the information of the Lords Commissioners of the Admiralty, that during my attendance on the beach yesterday morning, in assisting for the preservation of his Majesty's gun-brig Attack, a merchant brig was driven on shore at the same place, and her crew, seven in number, were, in my presence, rescued from the rigging of the vessel, and apparent certain destruction, in a most admirable manner, by means of a boat drawn from the shore by a line, that, affixed to a shot, was thrown over the vessel from a mortar, under the personal superintendance of Captain Manby.

And this morning a galliot having also come on shore on the beach, her crew, consisting of four Englishmen and five Foreigners, must inevitably have perished, but for the prompt assistance of Captain Manby, with his apparatus; by whose efforts, and by the same means as those employed yesterday, the whole crew were, in my presence, rescued from their most perilous situation; one of them however is since dead from his sufferings, in consequence of the severity of the weather.

I take the liberty of making this statement to their Lordships, conceiving it my duty, in common justice to Captain Manby, whose personal exertions are always prompt in the cause of humanity, and in the present instances have been so happily efficient.

I have the honour to be,

SIR,

Your most obedient, very humble Servant,

R. CURRY,

Captain of his Majesty's ship Roebuck, doing Port Duty.

John Wilson Croker, Esq. Admiralty.

Facilitating communication is at all times of importance; but when the stranded vessel is in momentary danger of going to pieces, this point becomes a consideration of extreme urgency. I feel a persuasion, that this particular service can only be carried into effect by a small and light piece of ordnance; the range of which is consequently very inconsiderable, when compared with that of a large and heavier piece, as it is weight alone that conveys the rope. In order therefore to increase the powers of a shot projected from a small mortar, its natural form must be varied, so as to give it additional preponderance. The following shape, in the form of a pear, has been used with the greatest success; for by the increased weight, the shot's momentum and power over the line is in consequence considerably augmented in its range; and when made to fit the piece as close as possible, a great increase of velocity is likewise produced from that decrease of windage.



Portability in the construction of a piece of ordnance (as just described) is the very essence of this service; and communication with the stranded vessel or wreck may be effected with a cord, by which cord a rope can be conveyed, and by that rope a hawser or cable sent to the distressed vessel; for this purpose the following was constructed.



To exhibit the difficulties, in certain cases, attending the getting a piece of heavy ordnance to the place required, and to show the importance of light ones in particular service, I shall annex the following interesting narrative, forwarded to me by a very active and laudable member of the Suffolk Humane Society; and an extract from experiments made at Woolwich, before a Committee of Colonels and Field Officers of the Royal Regiment of Artillery.

Lowestoft, 14th January, 1810.

DEAR SIR,

It is with the greatest satisfaction I write to you, to state, that yesterday your application of throwing a line from a mortar was most successfully put in practice on Kessingland beach. A Dutch vessel, from Rotterdam, was run on shore, she being water-logged; a most tremendous surf breaking over her; seven men on the bowsprit, and one man, the Master, on the shrouds. The circumstance being known at this place, Captain Hinton, as well as myself, were applied to for permission to take the gun, which was instantly complied with; Mr. Payne and myself getting the powder, &c. which was lodged in the battery, a coil of rope and two shots, a cart and two horses, with four men, set off as fast as we could drive, followed by Captain Hinton on horseback. When at Pakefield, two expresses met us, to say, that the men would be lost, unless the gun arrived in a short time, as the vessel was breaking up; and the greatest exertions were made, by getting us a fresh horse, by the people on the road. A shout from the people on shore welcomed our arrival, and, in a few minutes, we threw the shot and line over the men, who all, seven

in number, took the desperate resolution of trusting to this one line all at once, and committed themselves to the water, having previously cut away the shot; but the last man but one fell over the jib sheet, so that the last two were hanging, and we in the greatest fear of all of them perishing, pulled, and, as Providence ordered it, the jib sheet broke, and all the seven were brought safe by the line to the shore; our attention was now turned to the Master, who waved most piteously to us to fire again, and we did throw the line over the topsail-yard in good stile, but he had not the ability to get up the shrouds; we hauled it on shore, and threw it again close to him, which he looked at without attempting to secure it, and before one minute from the last shot, the bowsprit, main and mizen-mast, went, and he was lost, as must the entire crew, had it not been for your apparatus. This was witnessed by several gentlemen, four Lowestoft pilots, all the beachmen of Pakefield, and others. As another vessel was expected on shore, a request was made to leave the gun, &c. at Pakefield. I write in great haste to request another coil of rope, a shot, particularly a barbed one, leathers, &c.; several lines, with logs of wood, were veered away by the men, but not one could be reached from the shore, as the drawback prevented creepers

being thrown in to reach it: a barbed shot would have been of great service to us.

Yours most truly,

JAMES REEVE, Jun.

To Captain MANBY.

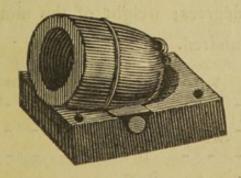
Extract from Experiments made at Woolwich, before a Committee of Colonels and Field Officers, to show the celerity with which the service may be performed.

A person completely equipped with every necessary apparatus to effect communication with a vessel driven on a lee-shore. A man mounted on horseback was exhibited, accoutred with a deal frame, containing 200 yards of log line ready coiled for service, which was slung as a knapsack; with a brass howitzer of a threepounder bore on its carriage, and two rounds of ammunition, the whole weighing 62 pounds, strapped on the fore part of the saddle. The person thus equipped, is supposed to be enabled to travel with expedition to the aid of ships in danger of being wrecked on parts of the coast intermediate to the mortar stations; and with this small apparatus, the log line is to be projected over the vessel in distress, from which a rope should be attached to it to haul the crew on shore. Captain Manby caused the howitzer to

be dismounted from the horse, and in a few minutes fired it, when the shot was thrown, with the line attached, to the distance of 143 yards.

At a subsequent trial the horseman, fully equipped, travelled a mile and a third; the howitzer was dismounted, and the line projected 153 yards, in six minutes.

The application of a small piece of ordnance likewise offers particular advantages, capable of being employed from a boat to go to the assistance of a vessel grounded on a bar when running for a harbour, the necessity of which repeatedly occurs, and was twice witnessed at Blakeney on the 10th of November, 1810, when boats endeavoured to go to their relief, and were enabled to get out of the harbour on the ebb tide, within 20 yards of the vessel; but it was found impossible to approach them nearer. Had such boats been provided with a piece of this description,



and the same firmly secured on a stout piece of plank by the holes left at each corner of the iron bed, they might have projected a small rope coiled in a crate or basket made to the form of the bow of the boat, and the persons in the boat so provided, would not have remained the distressed spectators of the untimely end of their fellow creatures, without being able to afford them the smallest relief, although so little was then wanted for that desirable purpose.

Although advantages have been pointed out in the use of these small mortars, it is necessary to be kept in remembrance, that they are produced for particular services; as the nature of the coast, and circumstances attending the distressed vessel, will direct what piece is best adapted to the undertaking. To enable the mind to form a judgment what can be effected by other pieces, the following are the minutes of experiments made with a five and half inch brass mortar; stating the quantity of powder used, and distance the ropes were projected against a strong wind, at the angle of 17 degrees; weight of the mortar and bed about three hundred.

Ounces of Powder.				Yards of Inch and Half Rope.				Yards of deep Sea Line.				
	4	-	-	-	-	134	-	-	-	-	148	
	6	-	-	-	-	159	-	-	-	-	182	
	8	-	-	-	-	184	-	-	-	-	215	
	10	-	-	-	-	207	-	-	-	-	249	
	12	-	-	-	-	235	-	-	-	-	290	
	14	-	-	-	30	250	-	-	-	-	310	

With a short eight-inch mortar, the weight of which and bed was supposed to be about seven hundred; the angles of elevation uncertain.

Our	nces of Po	owde		Ya	rds o	f deep Sea Line.	Yards of Two Inch Patent Sun- derland Rope, capable of hauling the largest Boat from a Beach.			
	32	-	-	-	-	439				
	32	-	-	-	-	479				
	32	-	-	-	-		336			

Report of Experiments made at Lowestoft before the Suffolk Humane Society, on the 28th of August, 1811, on the efficacy of giving immediate relief.

It was unanimously resolved—That the experiments of Captain Manby with the light mortar are perfectly satisfactory, as they prove an easy method of effecting a communication between the beach and a vessel wrecked on a lee-shore. That Captain Manby's new apparatus for accomplishing this most important object, has many peculiar advantages. Its lightness affords an ease of conveyance to places inaccessible to an heavy ordnance, and a power of applying relief in some situations, where the former mortar would be useless. Yet the Suffolk Humane Society by no means recommend the adoption of the present plan, by rejecting the former; but warmly urges

the application of both, as the circumstances of the coast, or tide, or vessel, may require. The Suffolk Humane Society feels peculiar pleasure in attesting the utility of Captain Manby's chemical preparation for firing of ordnance; the quickness of lighting, the certainty of its remaining unextinguished, when exposed either to wind or rain, must render the preparation of extreme benefit, especially when a minute's delay might be fatal to the lives of the sufferers.

The Suffolk Humane Society cannot refrain from hoping, that every part of the coast will soon be furnished with the means for facilitating a communication between the shore and a stranded vessel, and affording the most effectual aid in cases of shipwreck.

These resolutions are ordered to be forwarded to Captain Manby.

Signed by
M. MAURICE, Secretary.

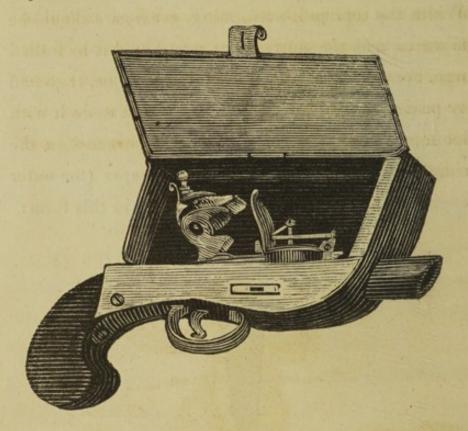
Having now described the method of laying the rope, and of securing it to the shot, the next is the application of the mortar. If the wind is sidewise to the shore, it must be pointed sufficiently to windward, to allow for the slack of the rope lighting on the object, as the rope will of course be considerably borne to leeward by the effect of a strong wind, and

by its being laid at a low elevation, insures the rope falling against the weathermost part of the rigging. While this service is performing, great care should be taken to keep the mortar dry; nor should it be loaded until every thing is ready; when that is done, it should be primed; but as it would be impossible to do it with loose powder in a storm, a tube is constructed in the simplest manner of common writing paper (the outer edge being cemented with a little gum) in this form:



it is filled with meal gunpowder, made into a paste with spirits of wine; when in a state of drying, run a needle through the centre, and take care the hole is left open, for on the tube being inflamed, a stream of fire darts through the aperture with such force as to perforate the cartridge; the mortar should then instantly be fired: and in order to lessen a difficulty that

has often occurred in performing this service, a pistol may be used,



having a tin box over the lock, to exclude the effect of wind or rain on the priming; and the muzzle being cut transversely, dilates the inflammation, so as to require but little exactness in the direction of the aim.

We will suppose communication to be secured, although it is scarcely necessary to offer any other assistance than that of a rope, as the inventive genius of a sailor will supply every thing else; yet I would exhort the people on shore to get a boat ready for meeting the vessel when driven on a beach; it is the

promptest and most certain method of relief, as well as most easy to be accomplished, for by hauling her off with the rope projected, the boat's head is kept to the waves, and not only insures safety by rising to the surge, but prevents her upsetting. Should there not be any boat at hand, the people on board may lash the rope round them in the manner here represented, and be drawn by it in security to the shore.

## MANNER OF LASHING THE ROPE.



Dreadful as this alternative appears, its success may be relied on; when, in attempting to swim on shore without such aid, it is almost certain destruction to the best or strongest swimmer; who is, in such endeavour, either drowned in struggling against the regurgitation, or killed by the violence with which he is dashed on the beach. To confirm this statement, of which I have been a painful spectator, is the annexed certificate of Lieutenant Dennis, late of the signal station at Hasbro'.

This is to certify, that on the 13th of January, a Dutch galliot came on Hasbro' beach, and in about one hour the vessel parted, and became a complete wreck. I immediately had recourse to the use of Captain Manby's mortar, and by means of throwing a barbed shot and rope over her, was enabled with a boat to save five seamen and a passenger; one man was drowned, owing to his endeavouring to save himself by swimming on shore.

Given under my hand, this 14th of January, 1810.

H. A. DENNIS, Lieutenant, Hasbro' Signal Station.

Among the several who have been saved by being hauled through the surf, having lashed the rope around them, I must refer to the following very interesting

certificate and circumstance, under which a poor Dutchman and boy were saved.

This is to certify, that myself and son were providentially rescued from the jaws of death by the meritorious plan of firing a rope; and I am fully convinced that no other means whatever could have extricated us from our perilous situation, being wrecked at Horsey in the Vrow Maria; and beg further to say, that I consider it a daty I owe to the inventors, if necessary, to confirm this statement upon oath, and shall recommend its adoption on every shore I may hereafter visit.

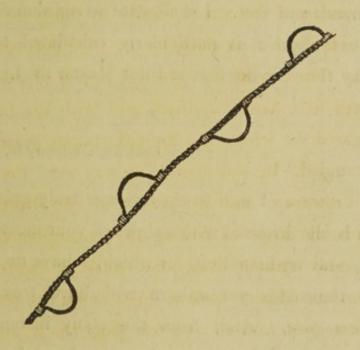
## JAMPES K. ZACHARIAS.

Yarmouth, 24th January, 1810.

The circumstances attending this very extraordinary case of the Vrow Maria deserves recording, as it displays a presence of mind perhaps unparalleled. Her crew consisted of five seamen and one passenger; but in beating over Hasbro' sand, three of them were washed overboard; the three remaining consisted of the Master, his son, and passenger, when driven on shore at Horsey. After much difficulty, the mortar, ropes, &c. were conveyed from Winterton, over a heavy sand for four miles. It appeared impossible that a boat could arrive in time before the vessel parted, which was expected every instant; the rope being thrown over the vessel, was immediately secured by the Master, who disengaging the shot from it, lashed it around his son, then to himself, and passed it to the passenger to do the same. Nothing appeared to press so much on the Master's mind, as the preservation of his son, whom he kissed, and, by other evident signs, was imploring the protection of heaven for this his greatest blessing. They all then approached the extremity of the wreck, ready to jump off at a signal, to be hauled on shore by the rope thus secured to them. The boy in the greatest agony of despair, with eyes and hands uplifted, and with his father, both cleared the wreck, but the unfortunate passenger got entangled. In this distressing way were the two former drowning, and the people of the shore left only with the hope of freeing the entanglement by pulling, and without avail: but while in this awful situation, the Master took a knife from his pocket, and disengaged himself and son from the passenger, who were both drawn on shore through the surf, he actually with the knife in his hand. Immediately after, the vessel broke up, and the unfortunate passenger was buried in the ruins of the wreck, and seen no more.

When a vessel is in that extreme and perilous situation, driven under a rugged and inaccessible cliff, and in danger of going soon to pieces, the most prompt method I should suggest, is by lowering to the crew a rope with stiff loops spliced into it, at the distance of a foot and a half from each loop, of sufficient size to contain the foot, by which they can ascend as a ladder.

## ROPE LADDER.



It is capable of being projected; and one of an inch and half rope was thrown from a mortar 194 yards. It might also, from the simplicity of its structure, be extremely useful in escaping from a house on fire

By making one end fast to the leg of a bed or table, the person would come down from the window in safety, and with much less difficulty, and quicker, than with the common rope ladder, which is heavier and more unwieldy. It has great advantages when employed in saving shipwrecked men in situations just described, when, from extreme cold and almost benumbed limbs, it would be impossible for them to climb up a rock, or ascend it even by the aid of a common rope. The holds thus spliced in, will support both hands and feet. I shall state an opinion formed of places where it is particularly calculated to save men, by the very intelligent Pilot Master of Lynn.

Lynn Regis, February 19, 1811.

SIR,

am in being favoured with a sight of your most useful and life-saving invention, for which, I have no doubt, many thousands yet unborn will have true cause to bless you. And, from the many instances of distress which I have seen, I am confident had such an apparatus been produced twenty years past, many hundreds of lives would have been saved, which have been lost. Permit me, Sir, to mention a few places of danger, amongst many which I could mention, where

great losses have taken place to my knowledge, for the want of proper means of assistance, such as your gun and rope ladder would have afforded; also some places where such things are wanted. All along the Lincolnshire coast, from Skegness to Saltfleet haven, I consider the gun would be of essential service, as many poor souls have been lost during this winter for the want of such assistance, particularly on the 10th of last November: this is rather a flat shore. From the Spurn point to Burlington bay, the shore is tolerably steep (viz. a sand); where, when a ship is driven on it, with the timely assistance of your gun, I feel confident scarce a single soul would perish. About Flamborough Head and Speaton cliffs it is very steep, and wants both the gun and the ladder, the height in places being 200 feet, and nearly perpendicular. From Foley to Scarborough the shore is very rocky, and requires both apparatus: at the latter place I have seen many ships on shore and lost, by driving out of the harbour on the rocks, in and about the bath houses, and many lives have been lost there also. From Scarborough to Whitby both would be wanted, as the land is very high, excepting here and there a place; but particularly at Whitby, to which many ships run in gales of wind from the eastward; and when they go on shore at the back of the south pier, scarce any of the

people are ever saved; whereas, if they had a rope ladder of about 200 feet long, it might be let down to them, and their lives saved. From Whitby to Coartham, and Redearr, the land is very high, and the ladder would be of essential service; but in Sandend bay, the gun. From Coartham and Redearr to Holy Island, the gun would, I am confident, be the means (if placed at proper distances) of saving THOU-SANDS OF LIVES, as there have been known to be, between the two places, forty ships on shore in one gale of wind; and the whole distance is a sandy shore, mixed with a multitude of flat rocks; so much so, that very few ships are ever got off again, and many only stand the tide they go on. At Holy Island, the gun would be of immense service, as many ships get ashore going in, and there is always plenty of help on the shore: the same may be said of Berwick-upon-Tweed. From Tweed north to Dunbar, both the ladder and gun are wanted, as the land is very high, and it is an iron-bound coast the whole distance. I once rode out a gale of wind easterly close to St. Abb's head. Our stern was about fifty yards from the rocks, in twelve fathom water, and the land 200 yards above our heads. Men were walking on the top of it, but could give us no assistance; whereas, if we had had your rope ladder, we might have got up the cliff. At Dundee

bar the gun would be of great service also, as a number of ships go on shore when going in upon both sides, which are steep sands; and many lives are lost for the want of proper assistance. Much more might be said to stimulate you to further exertions, in placing your useful inventions at the most dangerous situations upon the north coast; but I forbear, having had ample proofs of your indefatigable labour in the cause of humanity from various quarters. I only add, that I am confident if you will take a tour along the north coast, as far as Holy Island, you will hear such accounts as will make you shudder at the rehearsal of them; and will also cause you to exult with joy, that you have been the blessed instrument of saving thousands of the human race. Wishing you tenfold recompense for your labours, I beg to subscribe myself,

Your most obedient servant to command,

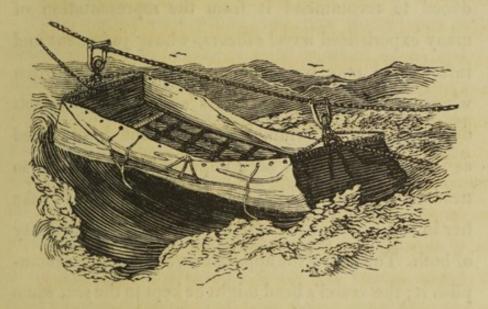
GEORGE HOLDITCH,

Pilot Master of Lynn.

There is still another method of saving a crew in certain situations. While communication is gaining, three stakes should be driven into the ground in a triangular position, so as to meet close at the heads, to support each other. As soon as communication has been effected

by the crew of the vessel, and they have secured the line attached to the shot, make fast to these stakes, and the crew will haul on board by it a large rope and a tailed block, through which a smaller rope is to be rove, both ends of which (the smaller rope) are to be kept on shore. When they have secured these on board, and the larger rope is rove through the rollers, let a gun-tackle purchase be lashed to it, then lash the purchase to the stakes. By the means of the purchase, the larger rope may be kept at a fit degree of tension; for, if care be taken to slacken the purchase as the ship rolls out to sea, the danger of the rope being broken will be guarded against; and, on the other hand, if the purchase be gathered in as the ship rolls towards the shore, the slackness of the rope, which would prevent the cot traversing as it ought to do, and plunge it in the water more than it otherwise would, will be avoided. It is likewise to be remembered, that the ends of the smaller rope which is rove through the tailed block, and is for the purpose of sending the cot to the ship from the shore, are to be made fast at each end of the cot, that it may be drawn back also from the shore.

## THE COT.



The above is a cot constructed for such purpose; but particularly for bringing on shore helpless women, children, sick and wounded, with lashings affixed, to prevent their being washed from it; the whole of the bottom is cut out, and replaced with strong square netting, to prevent water collecting in it when travelling backwards and forwards, as it might endanger their lives by drowning, in adding so much weight to retard or destroy its operation.

There is yet one circumstance attending the projection of a rope that has not been touched upon, but is nevertheless of great consequence; it will afford the means of giving assistance to a ship in distress at sea,

and suggests the benefit that would arise by every vessel being provided with an apparatus. I am induced to recommend it from the representation of many experienced naval officers, whose judgment and information may be relied on, and who have often witnessed in fleets of transports and merchant vessels during a gale of wind, that some one has wanted assistance; but it has been impossible to approach so near the distressed and unmanageable vessel as to take her in tow, without immediately endangering the safety of both. The use of the apparatus would at once accomplish it; the vessel's head might be kept to the sea, when not only the crew, but vessel and cargo would be saved. In support of this statement, I must here annex the very intelligent and ingenious remarks of a gentleman, whose abilities the public well know how to appreciate.

> His Majesty's Hospital Ship Gorgon, at Sea, May 24, 1810.

SIR,

I REGRET very much that my sudden departure from Yarmouth deprived me of an opportunity of expressing to you the satisfaction I experienced at witnessing your practice, with such accuracy and precision, as, in my mind, warrants the most happy results from your fortunate and valuable invention,

for preserving the lives of seamen from stranded vessels on a lee-shore.

The barbed shot which you can throw such a distance, with so strong a rope attached to it, and with so much correctness, as to make certain of hooking the wreck, or a rope laid down for the purpose, so as to enable a boat to be hauled off through the surf, when all other means must prove ineffectual, promises the most perfect success, and adds additional credit to your ingenuity and benevolent design. I cannot help thinking, that his Majesty's ships and vessels might derive considerable benefit from being supplied with your apparatus complete. For instance, when ships are rendered unmanageable at sea, by action, or accident, during the prevalence of a gale of wind, when communication with boats is impossible, and that of buoys or floats are slow and uncertain. Your barbed shot discharged as directed from either vessel, could afford instant communication; by which means, the vessel in distress could be taken in tow, or receive other necessary assistance, without approaching too near to endanger either. I think I may quote, with propriety, from my own knowledge, that had our fleet been supplied with your apparatus, in the gale following Trafalgar action, that several hundred lives

might have been preserved, when all other attempts would have proved dangerous and abortive. Exclusive of this consideration, another essential advantage may be derived from a vessel being supplied with your apparatus: should she be stranded on a coast where it is not established, if her situation can admit of it, your barbed shot can convey from her to the beach the regulated rope, with additional facility, having the wind in favour; where, on such melancholy occasions, there are generally people present to give their humane aid.

The many proofs of the number of lives already saved by your praiseworthy invention, from indisputable authority, and the wisdom of Parliament in having approved of, and granted a pecuniary reward for your discovery, leaves the favourable testimony or praise of an individual of little effect. I shall therefore content myself, by wishing you health to continue your unwearied and laudable perseverance in accomplishing the general establishment of your apparatus on the dangerous parts of our coasts, where it must yearly preserve many valuable servants of the public from untimely death. Thus, Sir, you have given to a shot discharged from a gun, the too frequent messenger of death, the new character acquired,

when armed with your invention, of being the welcome messenger of protracted life!

> I am, Sir, Your very faithful Servant,

> > J. JAMISON,

Physician to the Fleet.

To Captain MANBY.

Before I conclude my introductory remarks to the practical part of this work, I must beg to call the particular attention of every reader to the following highly important point; my task indeed would be but imperfectly executed, and my duty ill performed to the nation at large, as well as to the mercantile interests of this kingdom, were I to omit calling imperatively on every person commanding a merchant vessel, not to hold this new system as one of immediate resort in every circumstance of difficulty or seeming danger; nor to make it their remedy when merely labouring under the common effects of bad weather off a coast. No-the object of my plan is, and I wish it to be distinctly understood, that as a last resource, when the crew have fairly exerted themselves to brave the storm and escape shipwreck, when their last endeavours shall have failed, then, and then only, are they at liberty to consider my invention a justifi able resource.

I must here impress on the recollection of every person to whom, as the commander of a vessel, the property of others may be intrusted, that any thing short of their utmost exertions towards saving the vessel and her cargo, previously to abandoning their charge, will inevitably be considered a high misdemeanour, and an unpardonable dereliction from their duty, both as sailors and as men.

Remarks of this nature are made with painful reluctance, and would not have been thought fit matter for this work, had not some gentlemen of Lloyd's Coffee-house suggested, that my method of preserving the lives of shipwrecked seamen would lead to a premature and unwarrantable sacrifice of property, and operate as an inducement for seafaring persons to disregard the means heretofore adopted for preserving their ships. If these things had not been rumoured, I should have held it a libel on my countrymen to offer the foregoing advice; and I still persuade myself no man, who boasts of British birth, is capable of acting upon a principle so dastardly.

In refutation of the doctrine of those who would insist, that because a certain method of saving the lives of shipwrecked persons is discovered, every one who may find his situation perilous will at once run his ship ashore, without effecting every honourable and manly endeavour to save the property confided to his care; I ask, whether it must not rather be admitted, that when a vessel is encountering a heavy storm, and the commander, on whom the entire responsibility rests, feels a conviction of his safety, he is far better able to exert himself, and with a mind relieved by a prospect of personal safety, his faculties are left more free and equal to the arduous duty he has to perform; bearing, as he necessary will, in recollection, that in any event he has a resource for the security of himself and crew?

Instead, therefore, of my invention acting as a check to the ardour of a captain and his ship's company for preserving the property in their charge, it will not be too much to maintain the very reverse doctrine; that when the dread of perishing for want of assistance from the shore is removed, and the almost certain prospect of self-preservation before them, this new feeling will operate as a powerful stimulus to the mariner, and naturally call forth every exertion to save the ship and cargo.

I trust a review of these facts will incline those gentlemen, who have so hastily drawn their conclusions, to my way of thinking; and that they will join in countenancing a system, projected for the preservation of the lives of that class of men on whom England rests so much of its hopes.

Directions to Persons on board of Vessels stranded on a Lee-shore.

IT would be prudent (if practicable at the time) when it is found that the vessel must drive on shore, to strike the top-masts, by which great relief will be given to the vessel, and there would be less danger when she is rolling and beating violently, of their being carried away by her top weight, or of her breaking up. Should the vessel take the ground at such a distance from the shore as to be out of the reach of a projected rope, make fast to a light buoy or cask the deep-sea line and other small ropes, casting the buoy overboard, and veering away the line, &c. which will drift to leeward; and, although it will not be carried to the shore, it will necessarily approach sufficiently near to enable a barbed shot to be thrown over the line, and thereby effect communication for the purposes of hauling a boat off to a very considerable distance. The impossibility of any thing attached to a rope coming on shore from a stranded vessel, I have often witnessed; but to confirm it, I shall insert the following letter from that very praiseworthy character, Mr. Wheatley, of Mundsley, whose name will, to the end of time, be recorded with admiration for

the many heroic acts he has displayed to rescue his fellow-creatures.

Mundsley, March 14, 1808.

SIR,

I HOPE you will excuse the liberty I have taken by addressing you with this letter, on my return from Winterton, after witnessing your experiments and knowing the value of such a communication in distress or shipwreck. I conceive your plan to be a most useful one, therefore I think proper to point out the value of it to you, hoping you will endeavour to have the same put in execution all along the coast, or within five miles of each other. I have been three different times shipwrecked myself: on the 11th of December, 1791, I was shipwrecked on the Island of Silt, on the coast of Jutland, coming from the East to London, and unfortunately we could not get any communication with the people on shore, although we were not more than 160 yards from them. I had a small line made fast to the seamen's chests and trunks, but nothing would go to the beach that had a line to it, the surf taking the bite of the line and prevented any thing landing. Two seamen that could swim well jumped overboard with an intent to swim on shore, but both perished in the attempt; I fortunately had a

Newfoundland dog on board, which I bent the lead line to, and he swam on shore with it, and by that means seven seamen, the mate, and myself, were saved; 19 sail more were on shore, and only two men saved out of the whole. If such a communication had been known on that island at that period, upwards of 200 lives would have been saved. I assure you, if your experiment had been known on February 18, 1807, several lives certainly would have been saved on the coast. I was one of the spectators that stood on the beach at Hasbro' when the Hunter cutter was lost; and although she was within 150 yards of the cliff, no assistance could be given her; likewise the Albcona, of Sunderland. But it would be tedious to enumerate the different wrecks that I have witnessed within the fourteen years that I have lived on shore, and the hands all lost.—The misfortune of this coast is, when the wind blows strong to the northwards, the sea runs up to the cliff, which makes it impossible to get a boat off, or to come on shore with one, excepting at some particular places .- I herewith enclose you a certificate of my opinion of your plan,

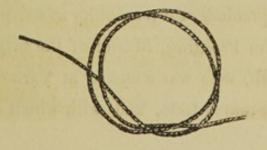
And am, Sir,

Your most obedient Servant,

F. WHEATLEY.

To Captain MANBY.

When the rope attached to the shot, (not having barbs to it) is fired over the vessel and lodges, let it be secured by those on board, and made fast to some firm part of the rigging or wreck, that they may haul off a boat by it; but should there not be any boat, then haul on board by the projected rope a larger one, and a tailed block, through which a smaller rope is rove. Let the larger rope be made fast at the mast head, between the cap and the top of one of the lower masts, and the tailed block a little distance below it; but if the masts should have been cut or carried away, then it must be made fast to the loftiest remaining part of the wreck. When this is done, there will be supplied from the shore a cot, hammock, netting, basket, hoop, or any of the numerous resources of seaman; which will run on the larger rope, and be worked by the people on shore. If a cot be used, the men may be so securely fastened in it, as to preclude all possibility of falling out, and then be brought from the wreck, one by one, in perfect safety. Supposing neither boat nor cot apparatus are at hand, first cast off the shot from the projected rope, and with a close hitch, thus,



let it be put over the head and shoulders of the person to be saved, bringing it close under each arm, drawing it tight, observing particularly the knot is on the breaktbone; for by having the knot in that position, on the people of the shore hauling the person from the wreck he will naturally be on his back, consequently the face will be uppermost to seize every moment for respiration, after each surf has past over the body. If circumstances compel recourse to this method, care must be taken to free the rope from any part of the wreck, and to jump clear away; but should there be more than one on board, each man should make himself fast in the same way, about four feet from the other, and join hands, all attending to the same directions.

A due attention to these directions will insure the certainty of safety; it will likewise enable the crews of the vessels, on whose coolness every thing depends, to preserve their presence of mind, and prevent the confusion that arises from agony and despair. In such a calamity, patience and regularity are the surest means of preventing disorder, whereas impatience tends to accelerate it, and precludes the possibility of self-preservation.

Mr. John Prouting, Master of the brig Elizabeth, of Plymouth, who was wrecked at Yarmouth on the 12th of February, 1808, and with whom a communication was effected, when no other means were possible, to which he has made attestation, has repeatedly said, himself and crew were so benumbed by extreme cold and fatigue, that they were ready to sink under the inevitable fate that presented itself, but no sooner was the rope unexpectedly thrown on board, than he was instantly flushed with the conviction that he should be saved with all his crew. He felt (to use his own strong expressions) AS IF A NEW LIFE HAD BEEN GIVEN HIM, and he with his people became collected, and were enabled to take every precaution for their preservation. He however lamented much the want of general instructions to forward the effect of the apparatus, as one of his men, from the powerful and irresistible feelings of self-preservation, cut asunder the very rope by which he was to be drawn on shore, and AFTERWARDS LASHED IT ROUND HIS BODY.

For giving Relief to Vessels stranded on a Lee-shore in a dark and tempestuous Night.

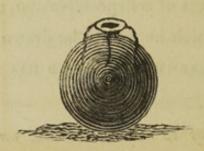
IT will be requisite—

First. To devise the means of discovering precisely where the distressed vessel lies, when the crew are not able to make their situation known by luminous signals.

Secondly. To produce a method of laying the mortar for the object, with as much accuracy as in the light.

Thirdly. To render the flight of the rope perfectly distinguishable to those who project it, and to the crew on board the vessel, so that they cannot fail of seeing on what part of the rigging it lodges, and consequently have no difficulty in securing it.

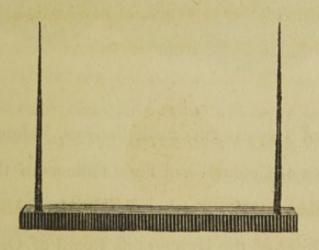
To attain the first object, a hollow ball was made to the size of the piece, composed of layers of pasted cartridge paper of the thickness of half an inch, having a hole at the top to contain a fuze.



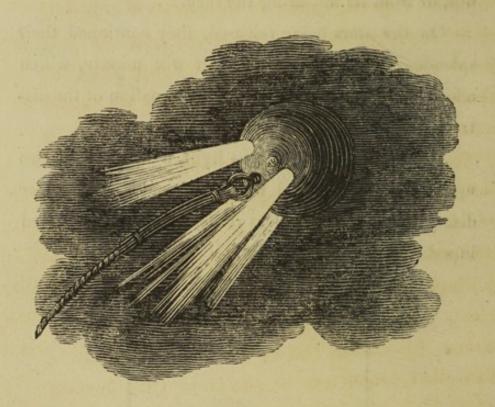
It was then filled with about fifty luminous balls of starcomposition, and a sufficient quantity of gunpowder to burst the ball and inflame the stars. The fuze fixed in the ball was graduated, to set fire to the bursting powder at the height of 300 yards. Through the head of the fuze was drilled holes, at equal intersections, to pass through them strands of quick match, to prevent the possibility from any accident of the match falling out, or from its not firing the fuze.

On the stars being released, they continued their splendour while falling for near one minute, which allowed ample time to discover the situation of the distressed vessel.

During the period of the light, a stand, with two upright sticks (painted white, to render them more discernible in the dark) was ready at hand, and pointed in a direct line to the vessel.



A shell affixed to the rope, having four holes in it, to receive a like number of fuzes, (headed as before described) and filled with the fiercest and most glaring composition, which when inflamed at the discharge of the piece, displayed so splendid an illumination of the rope, that its flight could not be mistaken.



Report of Experiments made thereon, before a Committee of Colonels and Field Officers of the Royal Artillery at Woolwich, on the 3d of May, 1809, by Order of the Honourable Board of Ordnance.

Royal Arsenal, Woolwich, May 3, 1809.

SIR,

I REQUEST you will inform the Master General and the Right Honourable Board, that in obedience to their orders, communicated in your

letter of the 28th ultimo, the Committee of Colonels and Field Officers, named in the margin,\* assembled on the following day, to witness the further experiments proposed by Captain Manby, with a view of obtaining a communication from the land with stranded vessels.

On this occasion Captain Manby exhibited his contrivance for ascertaining the position of a ship stranded during the night time, by projecting light balls into the air, from a mortar at a high elevation, by which means obtaining a momentary view of the object, its situation is instantly and determinately marked, by placing two upright sticks, fixed on a short plank, which can be moved with the greatest facility in the exact direction, and by which the mortar can be laid with precision, in the usual manner.

Captain Manby then exhibited a contrivance to insure the firing of the mortar in wet or stormy weather, by means of a short pistol, the lock of which is so covered by a tin box as to exclude the effects of the wind or rain on the priming.

The next experiment was to prove the practicability of throwing a life rope attached to a shot from a

<sup>\*</sup> Present-Lieut. General Lloyd, Colonel Ramsay, Lieut. Colonels Bothwick, Riou, and Charlton; Majors Viney, Waller, Griffith, and Dixon.

12-pounder carronade, and the application of a shell with several fuzes, instead of a shot for the same purpose, at night, so that the crew on board the stranded vessel, by the brilliant light of the fuzes, could not fail to see the projection of the rope to their assistance.

I am happy to report to his Lordship and Honourable Board, that Captain Manby's experiments were perfectly satisfactory to the Committee, and they have no doubt of their successful application to the noble purpose he has in view.

I have the honour to be, &c.

VAUGHAN LLOYD, Col. Com. Lieut. Gen.

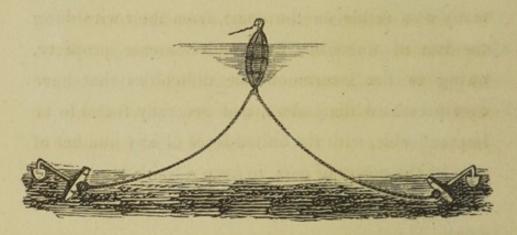
To R. CREW, Esq. &c. &c.

To get a Boat from a Beach over the Surf.

The importance of going to the relief of ships in distress at a distance from the land, or for taking off Pilots, was viewed as of the highest consequence by the Elder Brethren of the Trinity House, and offered to my particular attention by several distinguished characters and Committees of Life Boats, who stated, that if this important object could be reduced to certainty, the greatest benefit to the commercial and maritime interest of this country would result from it. The necessity of the measure likewise was pointed out by many who reside on the coast, from their witnessing the loss of numerous lives and immense property, owing to the insurmountable difficulties that have ever presented themselves, and generally found to be impracticable, with the united force of any number of men by the power of oars, to keep a boat's head to the sea, and to pull over a high surf and strong tide in a storm.

After numerous experiments to accomplish it in various ways, the mode following was most approved. About forty fathoms of two and a half inch rope made fast to two mooring anchors, was laid out parallel with the shore, at a distance beyond the sweep of the surf; to the centre of this rope was made fast a buoy of sufficient power to suspend the great rope, and prevent it from chafing on the sand, rock, or stones, as well as embedding, a circumstance that has rendered it impossible on a sandy or shingly coast, to leave out an anchor with a rope to it from the shore. As this

service should be performed in fair weather (to be prepared for the storm) it may be regulated with the greatest exactness, and should take place at the top of high water, that the upper part of the buoy may be at the full stretch of its power, and only seen at that time.



Should the shore be extremely flat, it will be desirable to place another set at a sufficient distance beyond the first, to ensure the operation of this method in any state of the tide.

At a Meeting of the Committee of the Life Boat belonging to Lowestoft, held January 10, 1810,

The Rev. J. G. Spurgeon, in the Chair,

It was unanimously resolved, that the experiment of Captain Manby, in throwing a barbed shot over the bite of a rope suspended between two anchors, placed at the distance of 120 yards from the shore, was attended with complete success. The distance at which the anchors were placed, was greater than any surf ever reaches on the Lowestoft coast; and therefore the power acquired of hauling off a boat from the shore, fully adequate to any difficulty that may arise. The rope that was used, was two and a half inch thick; the distance to which the shot was thrown was above 120 yards; ten ounces of powder was put into the mortar. The barbed shot possesses the advantage of catching the rope that is suspended, and the more tightly it is pulled the stronger is the hold it acquires.

It was then unanimously resolved, that the Committee should present their thanks to Captain Manby, for his exertions on this day, and assure him they shall be happy to see his benevolent plan carried into general effect.

J. G. SPURGEON, Vice-President, S. H. S.

MICHAEL MAURICE,
Secretary.

At the Anniversary of the Suffolk Humane Society, the members convened the attendance of the Pilots, salvage men, and sea-faring persons, to pass their opinions on, and attest to, the method proposed.

Lowestoft, 17th July, 1810.

WE, the undersigned Pilots and Beach-men 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 its beaching. When at a distance of 130 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 50 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.

T. LINDSEY. J. SMITH.

D. BURWOOD. W. GREEN.

J. STARK. R. REDE.

J. MITCHELS. T. FOLKARD.

J. STEBBENS, Sen. W. PARKER.

His

J. Brame. G. × Smith.

Mark.

T. MASTERSON. S. CAPPS.

J. PALMER. J. CUNNINGHAM.

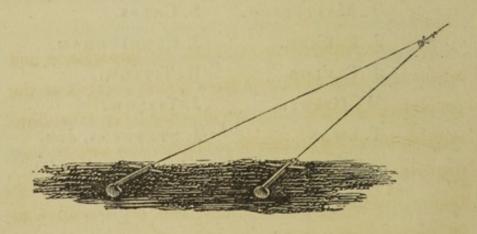
J. TAYLOR. R. TITLOW.

W. GILBY. J. TITLOW.

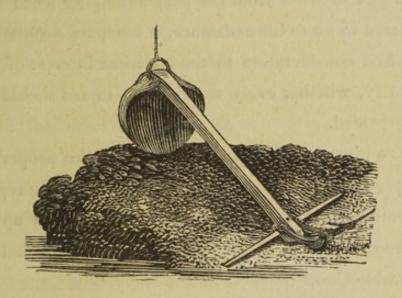
T. SWAN. J. STEBBENS, Jun.

Directions for getting a Boat from the Beach by the proposed and approved Method.

The royal mortar being brought to the spot, is to be pointed in the direction for the buoy, and should be laid at a very low elevation, but such as to insure the range; for the more it is depressed, the less slack of rope there will be from the parabola formed in the shot's flight; the basket with the rope ready laid (having a barbed shot to it) is to be placed in the front of the mortar; on its being fired, instantly haul the slack of the rope in, to prevent the effect produced on it by a strong tide. Which being done, let the remainder be gently hauled in to insure the shot's grappling with the great rope; when that is caught and hooked, a power will be acquired fully adequate to the service.



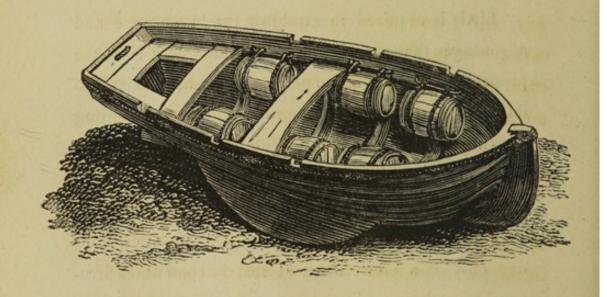
As a cast iron anchor appears particularly adapted to this method, and would be much cheaper than hammered, the following is a plan of one, which the Honourable the Navy Board approved and allowed me to cast at their expense, for the purpose of making the experiments.



Little is required to establish the importance and advantages that will result from giving every boat the properties of a life boat, particularly when taken into consideration that it can be produced at a very trifling expense. To estimate the value of a seaman's life in the hour of war is no easy task, and yet it is often to be rescued from a watery grave by this simple method. To the mercantile interest of the country the loss of one only of a crew, when at sea, is sometimes irreparable, and may prove not merely the destruction of the remainder, but of the vessel and cargo; if, therefore, any ship's boat can be so fitted up at the small sum of Three Pounds, so as to insure the safety of a

person who may accidentally fall or be washed overboard, and who in the instances cited so often perishes in a gale of wind from the boat swamping when it is lowered to go to his assistance, it becomes a matter of the first consideration to the maritime interest of the country, whether every vessel going to sea should be so provided.

To illustrate the method of giving the properties of preservation to any boat, I have selected the representation of a man of war's jolly boat, fitted up to make experiments thereon, by permission of the Honourable Commissioners of the Navy Board.



To give it buoyancy, empty casks were well lashed and secured in it. For the advantages of keeping it in an upright position, launching from a flat shore, beaching, and to resist upsetting, it had billage boards of equal depth with the keel, and when a good sized piece of iron or lead was let into or made fast to the keel, if any accident did upset the boat, it immediately regained its original posture. A stout projecting rope, with swellings upon it to increase its elasticity, surrounded the gunwale, served as a fender, and prevented it being stove in lowering down, or when driven in contact with the vessel it might be going to relieve.

The boat thus described had the plug out, and was filled with water until it run over the gunwale, when a crew of four, with myself, tried it in every way, and found from the buoyant property of the casks, it kept the boat so much above the water's edge, that it was rowed with the greatest ease, and was capable of performing any service required: this was agreed to by all hands, and the experiment confirmed the security.

The importance of this simple and efficient method of giving security to boats constructed for every particular part of the coast needs no comment; and in which the people belonging to them feeling a confidence, the benefits that will result from it are immediately discovered. It is earnestly to be hoped the day is not far distant, when every society around the coast

possesing boats, will not only have one fitted up with this mode of security, but will possess themselves with the means of forcing their boats over a surf. There is one method alone which will insure security to life and commerce, viz. the Legislature giving a bounty for every person saved in situations of great hazard, when from the raging of the sea the people of the coast are obliged to have recourse to the methods proposed, and without which aid they would be incapable of going off to the relief of the sufferers. Such an encouragement would infallibly answer the great object: they could then afford to fit up their boats, supply themselves with a proper mortar, anchors, &c. the total expense of which would not exceed twenty pounds; and be thus enabled to get from a beach the largest description of boat, A CIR-CUMSTANCE HITHERTO IMPRACTICABLE FROM A FLAT SHORE, WHEN OPPOSED TO A HIGH SEA. This subject will be touched upon again. But to return to the casks, let those selected be strong and air tight, and such as have had oil in them will be preferred; for being saturated by that fluid, there is less danger of the air escaping, and particularly when sent to a warm climate: these are cheaper and more durable; however, it would be advisable to have them every year painted or coated with tar. In applying them they should be

placed as low in the boat as circumstances will admit, but certainly below the gunwale.

A disclosure of the means produced for discharging guns, &c. without the application of fire cannot yet be made, as of the several compositions that I have found to answer the purpose, no one in particular has been determined upon as best calculated to obviate every fair objection, and to insure uniform success. I am also naturally desirous of availing myself of the judgment of the most scientific and experienced characters, whose collective opinions upon the effects produced, will enable me to ascertain by the further experiment intended to be made in the presence of his Royal Highness the Commander in Chief, which of them is fittest for the end in view. There are no less than four different compounds, all hitherto answering the purpose; but the ensuing experiments being publicly made, will give an opportunity to every professional person to form an idea of that which shall be the quickest in its operation, and altogether best calculated for service.

I shall therefore for the present beg to offer, for the attention of the reader, a short letter upon this subject transmitted to me by an Officer, whose experience and judgment in every matter connected with his profession, renders him in all respects qualified to give an opinion, and whose testimony I consider highly flattering and encouraging.

Victory, Wingo Sound, 14th November, 1811.

SIR,

I RECEIVED by Captain Willes the honour of your letter, with the small case containing the materials for discharging guns without any application of fire. I directed the experiment to be made on board this ship, and the discharge from the gun was as instantaneous as possible, without even the cartridge having been previously pricked.

I consider the invention of this system of firing guns without priming or the use of matches, to be deserving the attention of Government, and, with your former invention for relieving persons from shipwreck, to entitle you to the highest credit.

I have the honour to be,

SIR,

Your most obedient servant,

J. SAUMAREZ.

G. W. MANBY, Esq.

Before I take my leave, one more remark must be offered. In the introduction of my method for relieving the distressed, far be it from me to take from the

merit of any individual, and by the like equitable reasoning, no one would wish to wrest from me the deserts of my labours. It certainly was my intention to have passed unnoticed the many illiberal and unfounded insinuations, which have almost followed me to the present day, that this invention did not originate with me. These insinuations I will not condescend to refute, but simply call to the public eye what has been submitted in these pages, leaving it to my readers to form their own conclusions, and to determine whether the merit of a discovery is with the man who not only produces, but proves it.

Having now concluded this little Essay for the Preservation of Shipwrecked Seamen, I would fain subjoin the following Address and Letter to the Magistrates of the County of Norfolk: and whenever the history of that County is recorded, I hope the names of those Gentlemen of the Grand Jury (herewith annexed) who so readily subscribed towards the comforts of the unfortunate, and founded an institution so creditable to the nation, will be handed to posterity; and I earnestly hope their benevolent example will be imitated by the Lord Lieutenant and Magistrates of every County bordering on the ocean.

To the shipwrecked mariner who has just survived the pitiless storm, his first and only feeling is gratitude to heaven, and the hand that saved him; but when these feelings have in some degree subsided, he finds his distresses not at an end, and his joys but transient. Naked, and perhaps far distant from his native home, he escapes a watery grave for new horrors, and destitute of the means of reaching his family and friends, is tempted to bewail his safety from the wreck as a misfortune, and to look back on the death he has only that moment avoided as an unwelcome event. But how

different is the reverse of this picture; with a heart overflowing with gratitude to Providence, and the intrepid hand that helped him in safety to the shore, he is welcomed to a habitation, supplied with every necessary his forlorn and helpless situation demands, and by the philanthropic aid of Britons, the unhappy traveller obtains the means of meeting those so dear to him: thus his escape from the horrors of shipwreck creates in him, "AS IT WERE, A NEW LIFE."

## ADDRESS.

Those who reflect, how much of the coast of the United Kingdom resembles that of Norfolk, on which coast, it has been ascertained, that EIGHT HUNDRED AND FIFTY persons have perished within these last twenty years, (without the crews of those vessels being included, that were known to have been totally lost, when driven on shore, during the long periods of a winter's night,) must feel for the horror of a situation, whose proximity to the shore affords no means of escape.

And if so many hundreds of lives have been lost on this part of the coast, how many more hundreds of this valuable part of the community might be saved to their country, if the means of affording them relief were to be generally established!

The having witnessed many distressing scenes of whole crews perishing, within one hundred yards of the shore, from the impossibility of forming a communication from the shore with the stranded vessel, pointed out the necessity of adopting some certain mode of preventing similar misfortunes; and to the

invention of such apparatus as should best suit the casualties of shipwreck, under the different circumstances of the nature of the coast, hour of distress, &c. &c.

At length, after four years of earnest pursuit, labour, and expense, the experiments have been so far matured, as to have met with the approbation of some of the most enlightened and experienced men in the kingdom, (to whom these experiments have been submitted,) and to the actual saving of NINETY MEN from a watery grave, with only six mortars, within the space of the last two winters.

The application of these means having rescued so many from almost immediate destruction, and the loss of many crews having, about the same time, taken place, for the want of such an apparatus on the spot where the crews were seen to perish, determined that distinguished philanthropist,\* who was benevolently seconded by the Treasurer of the Navy+, to address the Prince Regent on the propriety of this plan, for rescuing shipwrecked sailors, being carried into general effect, along every dangerous part of the coast of the United Kingdom, at the expense of the Legislature. It has received his Royal Highness's

<sup>\*</sup> Mr. Wilberforce. † The Right Hon. George Rose.

most generous approval; and direction has been given to me to carry it into immediate and general effect.

I cannot, however, feel satisfied, and leave the work of humanity half perfected. That the shipwrecked mariner, if preserved, is brought on shore, worn out with bodily fatigue, and mental horror and agitation, with limbs benumbed and swollen with wet and cold; destitute, most probably, of either linen or clothes, except those on his back, wet, drenched, and dripping; that he preserves neither money nor means to relieve himself, nor to procure those necessaries and comforts, which cold, hunger, and nakedness claim; that he, perhaps, is many miles distant from his family and friends, or from a port whence he might get a passage to them; these, and such like circumstances of distress, which have been realized in many instances of shipwreck, wherein I have been concerned, induce me to make one effort more in behalf of such sufferers, by recommending to the consideration of every county where calamities of this kind are frequently occurring, whether an alleviation of the hardships to which this valuable order of men are exposed, might not be purchased at an easy rate; whether the injury of their health might not be easily repaired, or provided against, comfort administered, and helped on their way to their place of abode.

FOR THIS PURPOSE, I WOULD PROPOSE, THAT SOCIETIES BE FORMED IN THE DIFFERENT MARITIME COUNTIES FOR SUCH OBJECTS.

It may, possibly, be thought a difficult matter to provide for contingencies, confined to neither time nor place; but we have daily proof, that the great zeal and invention of the people of this country are seldom foiled, and that, when stimulated by motives of benevolence, will surmount almost impossibilities.

G. W. MANBY.

TO THE

## MAGISTRATES

OF

## THE COUNTY OF NORFOLK.

GENTLEMEN,

I shall not, I trust, be considered guilty of presumption in addressing myself to you, as Magistrates of a County in which I am proud to declare I received my birth, by calling to your attention, that amongst the many charitable establishments which adorn the realm, whether they are of a general or a local kind, they are, for the most part, so constituted as to answer the end proposed in their foundation. The want, however, of the fostering hand of care of the superior orders, has prevented some of them from producing the full effect of their design, and the intention of the individual, from whom a beneficial scheme may have originated, has

in part failed, or not attained to a pitch of perfection. In this County, celebrated for benevolence and liberality, many a charitable institution flourishes under the protection of the humane and opulent, testifying the spirit that animates the heart of man. But amongst the various establishments for the relief of suffering humanity, which are founded in this County, there is one, not (it may fairly be presumed) of the least importance, which we cannot yet enumerate—and this is—

## "A Society for the Relief of Shipwrecked Mariners."

It is not a disinclination to advance such an Institution, that it exists not in this maritime and naval county; it is only because the call has not been made to those who can best support it, who can appreciate its utility, and interest the public feeling in its promotion.—With this view, I offer my humble endeavour, as I cannot satisfy myself that my labour is over, and this work complete, until comfort and the necessaries of existence, are in these cases provided: without these, the motives by which I am actuated cannot have their full scope.

You, therefore, Gentlemen, Guardians of the Liberty of the Subject! Administrators of the Laws of your Country! Magistrates and Ministers of Religion! you are exhorted and entreated to encourage by your sanction, and to promote by your example, an Institution—

"For giving efficacy to whatever promises most to excite the exertions of humanity, in saving the Life of a Sailor.—For providing such Clothing and Necessaries as may, in different cases, be required, when he has escaped from Shipwreck—And for assisting him to his home."

These, and such as these, are the objects for which your aid is solicited, and for which no appeal to your feelings can be required: your own hearts will suggest the propriety of such an Institution—you will readily advance its interests—you will, I trust, sanction the views of its author—you will excite the noble and opulent to extend their bounty—you will assist the Clergy in this benevolent task—and by your influence in the County, you will induce those who have the means to lend their aid in this work of humanity and mercy. You can want no further (and you can have no higher) stimulus, than that of Religion. Nor can an appeal to your Patriotism be needful; the bare mention of the wants of British Seamen is enough to excite your zeal and energies, in advancing an Insti-

tution of such importance to our mariners.-Considering the various blessings this Country so pre-eminently enjoys-that the comforts, nay, the ornaments and embellishments of life, have been chiefly acquired through their toil-and, especially, that through them we have been advanced in Naval Glory above every Nation now existing, or recorded in History; when we reflect, that, in spite of the efforts of our enemy, our commerce has been increased to an extent unprecedented both in our annals, and in those of once rich and mighty states, you will feel disposed by every motive to uphold, support, and comfort that race of men, through whom these things have been attained, and afford them both the casual consolation of the moment, and also every kindly office, by assuaging a calamity to which they are so repeatedly exposed.

You, Gentlemen, whose rank and station enable you to promote so benevolent an Institution—"A PHILANTHROPIC SOCIETY FOR THE RELIEF OF SHIPWRECKED MARINERS"—you! whose liberal views and sentiments entitle you to estimate its due value and importance—you are called upon to encourage and support, by your patronage and example, this salutary measure—to urge the Noble and the Rich to unite with you, and the Ministers of Religion, in giving strength and stability to it, in exhorting,

encouraging, and entreating the Inhabitants of this flourishing County, to co-operate with you in this task of Charity and Patriotism.-Let the splendid examples of those Heroes and Statesmen who have, in different æras, graced this their native County, excite you to emulate their virtues-to be guided by those truly dignified motives which actuated them-and never forget the last bequest of Him, who has attained the highest pitch of Naval Glory and Excellence-"ENGLAND EXPECTS EVERY MAN TO DO HIS DUTY:" -this Signal, by which the matchless standard of valour, genius, and patriotism, has acquired a deathless Fame, the gratitude and applause of remotest posterity -a signal which was no sooner repeated, than it was answered by the most splendid and greatest triumph which the world ever beheld upon the watery element, during which he breathed forth his exalted soul, in the cause of his Country, and his unconquerable spirit ascended to that bright abode of reward and endless Glory, leaving behind him a memory of unperishable fame.—Amongst the various duties, then, which as Britons we are called to fulfil, this, (if he is permitted to observe us) must be most grateful to his exalted soul; to behold his Fellow Countrymen relieving the wants of men, like those whom he has repeatedly conducted to Victory and Renown-of men, over

whom he was not only their Leader, but Benefactor, Parent, and Friend.—These, and men like these, require the hand of Liberality to promote and confirm an Institution for the purpose of providing them relief and comfort. The Seamen of Britain, Bulwarks of our Strength, and Pride of our Glory, whose ardent spirit, whose daring intrepidity, whose resolution, whose contempt of death and danger, have hurled upon our foes their boasting menaces—these are the persons who now claim your sympathy and support, in establishing the plan here recommended—a claim, it will be admitted, founded in justice, and which you will, no doubt, both cheerfully and willingly patronize and advance.

I have the honour to be,

GENTLEMEN,

Your most obedient Servant,

GEORGE WILLIAM MANBY,

Barrack Master of Yarmouth.

August 12, 1811.

Members of the Grand Jury of the County of Norfolk, who immediately founded an Institution for alleviating the Sufferings of Shipwrecked Mariners.

VISCOUNT PRIMROSE,
SIR JACOB ASTLEY, BART. M.P.
SIR GEORGE JERNINGHAM, BART.
SIR M. B. FOLKES, BART. M.P.
T. W. COKE, Esq. M.P.
GEORGE BEAUCHAMP, Esq.
EDWARD STRACEY, Esq.
ANTHONY HAMOND, Esq.
J. MOTT, Esq.
T. T. BERNEY, Esq.
N. MICKLETHWAYTE, Esq.
R. B. COOPER, Esq.
E. K. LACON, Esq.

When a man nobly hazards his life to save that of another, and in the attempt perchance loses his own, leaving a wife and numerous family to deplore his loss, destitute perhaps of all protection and comfort, and dependant on a parish for subsistence, it cannot be considered unreasonable, that he should expect a stimulus to so meritorious an undertaking—it is in my opinion a justice in all respects due to him.

There remains then but one measure to ensure the certainty of saving the shipwrecked seaman in almost every situation, and particularly in those hazardous cases, when, without it, it never can be accomplished. I shall be freely pardoned for urging those Gentlemen, who possess both influence and philanthropy, to interest themselves in a matter of so much national importance. In making this appeal, my wish is to promote an inquiry, whether the greatest benefits would not arise by granting a bounty, as head money, to the active people of the shore for each life saved, in every case of difficulty and hazard, when in the effort the people of the shore expose their own lives to the greatest danger. It has been the subject of a Memorial to Government, and I anticipate it will be attended to from the great public good likely to result

from it. I am induced to make this representation in behalf of the many gallant and enterprizing men, whose conduct I well know how to appreciate, having so often had occasion to applaud and admire their intrepidity; and to show them the gratification I have in fulfilling my promise of recommending their laudable exertions to his Majesty's Government, and of requesting a reward for their meritorious zeal and humanity.



ERRATUM.

Page 59, last Line, for close read clove.

4 I and news That Dow Walker Herewith Souband for your personal a little to the Suntons - if such much with your apprestation, me will other me , by taky out stupe or un Think proper -If live one punt you will confer or fewer by hty me hun a fue minht enverente. meth you preview to you Thursday har Such anhy

the Jorry 1813 Capt Manh

Highland Society Hall Edin 30th January 1813 Captain Manby, Inspector of British Coasts, is to describe and uplain his plan for saving the lives of persons, in cases of Shipwreck de, in presence of a Cour mittee of the Nightand Society, in the Committee here, on Monday 1st bebruary next, at one Elock after noon, when your presence is requerted as a Member of the Committee.

Highlain dociety Hall Essi harmue games 1813 Captains Manky, infector of which Coasts, is to describe and blain his plan for sawing the es of persons, in cases of dhip. reche the, in presence of a love the of the Wahland Locusty in a downstee here, on Missiony 1st brunny next, at me tollock after non, when your presence is no uested is a newhor of the Cone rittee.

30 July 1813 Sall Problem

30 th Jany 1813 Hypland Locety Capt. Manbys, Path Walker squire Mumsheuch

Heighland Tociety Hall Edin: 6th Febry 1843 Captain Manby proposes, on may the stitust, at one offeel M., to exhibit, in Burntsfield its, the Operations necessary by is plan, for saving Lives, in rses of Shipwreek Je when our presence is requested, æs Member of The Highlans

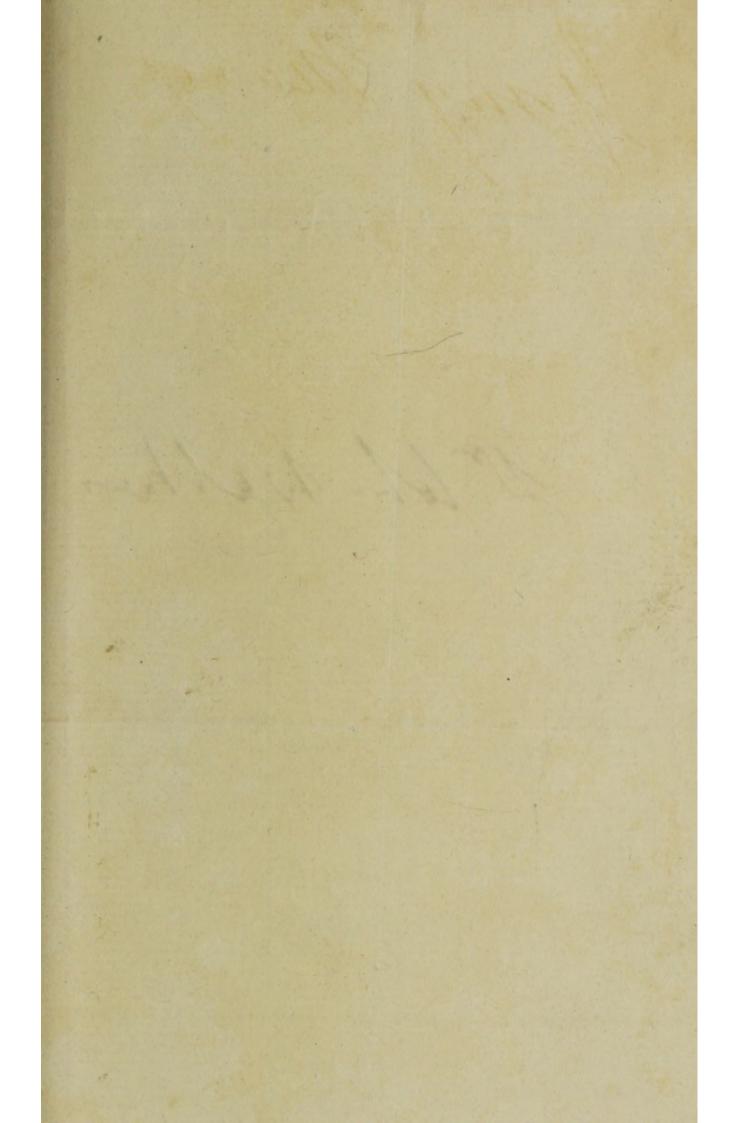
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ext! munch Welter & ABroante

6 Felry. 1813 Mightanet Soc Coop! Munby Patrick Walker Esquire Advocate Drumshengh

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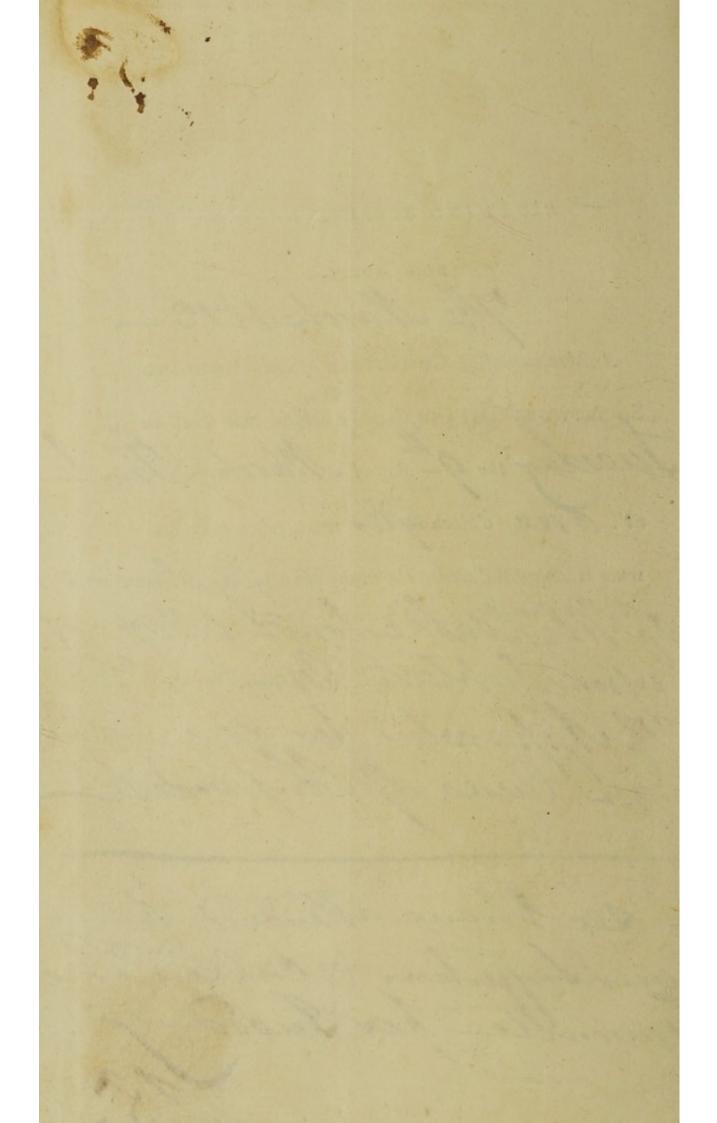
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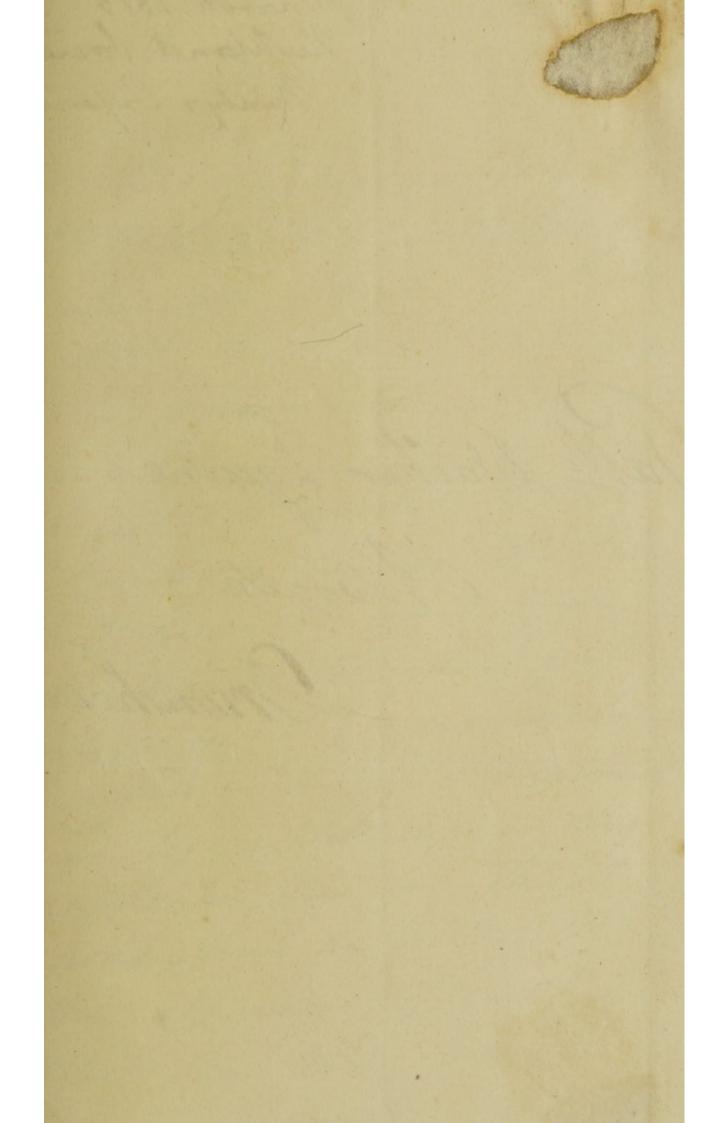


sold walker

## HIGHLAND SOCIETY HALL,

March 1813 A Meeting of a COMMITTEE of the HIGHLAND SOCIETY OF SCOTLAND, is to be held in their Hall on Suesday the 9- day of March at our o'clock after noon, when your presence is requested under the usual penaltyley doses ratus her low on see Thave attended when & call





7 March 1813 Highland Socie Manly & Experin Jath Walker Lyuine Advocate Trumsheuer

: Him Machenogie from Compliments to Mellather takes the liberty to Suy = I then the Robord or Cathlein nery's experiments, Thould tain a recommondation to Jocety to transmit to the 4+ Pumber on the loans. Thethund, Most description of Captain intrys apparatus for projecting The, & forming amminications A vepile in distrips + accom= nied by a plette representing appartus used for Many whom - and an litimate The offence of early. Man on the lunge?

or small scale 2 and a that the High land society the produce a Set of the apparate on the small scale; to be hept in the Hall, for the insh of these who may be desired of seeing it 20 god Stace The March 1019.



