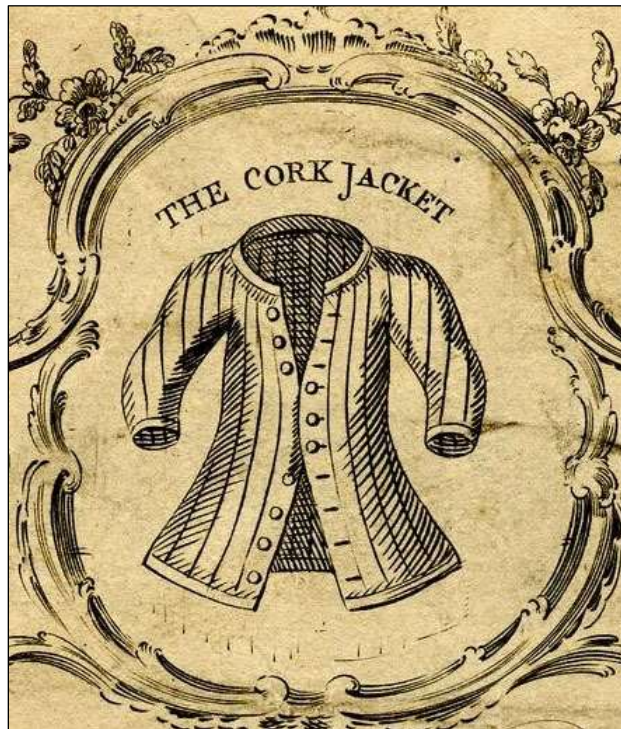


INVENTORS OF THE CORK LIFEJACKET

RIVALRIES AND INTRIGUE IN GEORGIAN LONDON



Diana Whistler

Inventors of the Cork Lifejacket: Rivalries and Intrigue in Georgian London.

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This research has no commercial purpose.

Webpage: <http://www.whistlerhistory.com/corkCutter/>

Illustration on title page:

Detail from the trade card, issued in about the 1760s, by the London cork-cutter John Ward, "Inventor and proprietor of the Cork Jacket."

The British Museum, London, museum number Heal,50.11.

Image from the online catalogue, reproduced for research purposes.

Contents

Preface

1. Introduction 5
2. Flotation Devices from Ancient Times 9
3. The Cork-Cutter's Trade 10

PART ONE: Eighteenth Century

1. Prologue 14
2. John Wilkinson 14
3. The Rivalry with John Ward 17
4. French Inventors 25
5. More Developments in London from John Wilkinson and
New Rivals Macpherson and Bell's Cork-Jackets 27
6. Aerial Mariners 31

PART TWO: Nineteenth Century

1. A New Century, New Ideas 35
 2. William Henry Mallison 37
 3. The Next Generation 47
- Notes 50

List of Illustrations

Figure

1.	A public exhibition of Francis Daniel's life preserver	6
2.	Assyrian soldiers swimming across a river	8
3.	Two workers cutting bark from a cork oak.....	11
4.	A cork-cutter's workshop	12
5.	Trade card for Henry Coe, cork-manufacturer, London.....	13
6.	John Wilkinson's design for a cork lifejacket.....	16
7.	Trade card for John Ward, London.....	18
8.	Trade card for James Bryant, trunk maker, London.....	22
9.	Trade card for John Clements, trunk maker, London	23
10.	Jean-Baptiste de la Chapelle's design for a "flotation suit" made with cork	26
11.	The British Royal Navy frigate HMS <i>Quebec</i> in flames	28
12.	Macpherson's design for a cork lifejacket	29
13.	First balloon flight over the English Channel	32
14.	Abraham Bosquet's design for a life preserver ring	34
15.	Abraham Bosquet's design for a life saving float.....	36
16.	William Henry Mallison's design for a cork lifejacket	38
17.	Header on a notice of a public exhibition of Mallison's lifejacket	40
18.	London Bridge.....	41
19.	John Dennis Caulcher's design for a cork lifejacket.....	46
20.	A member of the Whitby lifeboat crew.....	48

Preface

1. Introduction

This research started with an interest in studying the work of cork-cutters in eighteenth and early nineteenth century England – the time of the Georgian era which spanned the years from 1714 to 1837, covering the reigns of George I, II, III, and IV, as well as that of William IV. In tracing my family history, I discovered that I had “cork-cutter” ancestors and I wanted to learn more about this profession which was swept away by the industrial revolution.

In browsing through the collection of trade cards in the online catalogue of the British Museum, I came across an ornate trade card, issued in about the 1760s, by the London cork-cutter John Ward, “Inventor and proprietor of the Cork Jacket” (Figure 7). By consulting various sources, a fascinating history was revealed.

In London, in the 1760s, there was another claimant to being the original inventor of a lifejacket, made with cork for buoyancy, for saving the lives of mariners. This innovator, John Wilkinson, published a book on his cork-jacket design and registered a patent. In promoting and marketing the cork lifejacket, there ensued a bitter rivalry between John Ward and John Wilkinson. In the 1780s, Macpherson came on the scene with a proposal for a more efficient cork-jacket design. In the new century, the cork-jacket entrepreneur William Henry Mallison set up his business in London.

This study gives recognition to the endeavours and exploits of these visionaries from Georgian London who were dedicated to producing a cork lifejacket made to prevent a tragic death by drowning. A review published in 1932 commented on Mallison’s invention:

It is of interest to note that though invented so many years back, it is in principle very similar to the type of lifejacket in use to-day on most British vessels.¹

Inventors of the Cork Lifejacket



Figure 1: A public exhibition of Francis Daniel's life preserver, 1806.

Hand-coloured etching by T. Prattent, 1806.

Science Museum, London, object number: 1993-296.

Image from the online catalogue, reproduced for research purposes.

The setting is the River Thames in London. Inscription along the bottom border:

A National Concern, dedicated to the King's Most Excellent Majesty.

Being an exact representation of Daniel's Life Preserver as exhibited the 21st July 1806, passing through London Bridge to Gun Dock Wapping.

Mr Daniel has been honored with the Gold Medal from the Society of Arts, and the Honorary Medallion from the Royal Humane Society for the Invention.

The view is looking upstream from London Bridge – in the distance is the dome of St Paul's Cathedral. At top left, a list identifies some of the people in the picture. "Mr Daniel, the Inventor," is the man, at far right, standing on the rooftop of a barge, wearing yellow pants and a black jacket. At the bow of this same barge, a man named Dr Hawes holds a large, red-coloured flag marked with the words: "Daniel's Life Preserver in Case of Shipwreck."

Inventors of the Cork Lifejacket

Reflecting back to the pioneer lifejacket entrepreneurs, possibly their vision was ahead of their time. They published their scholarly research in books which can now be accessed at online catalogues and digital archives. That is, their work, no longer relegated to obscure storage rooms, can be studied and appreciated today, which made the research for this study possible. From the online collections of various museums I did not locate any surviving example of a lifejacket from the Georgian era.² The industriousness of the business owners, shopkeepers, and crafts people who were dedicated to marketing the lifejacket has been recorded in the news media of the time and briefly comes to life with their decorative trade cards which survive in museum collections (a selection is illustrated in Figures 5, 7, 8, and 9).

This history is restricted to flotation devices made with cork; coverage of inflatable life preservers is not given. As a brief note, at the time that William Henry Mallison was advertising his cork-jacket, a character named Francis Columbine Daniel was developing and testing a design for an inflatable life preserver.³ A marvelous print, displayed in Figure 1, depicts a London scene in 1806 of a lively crowd of spectators attending a demonstration of Daniel's lifesaving apparatus conducted by swimmers on the stretch of the River Thames from London Bridge to Wapping.

One year later, in July 1807, on the same segment of the River Thames, Mallison staged a public exhibition where swimmers trialled the use of his cork-jacket – the spectacle of this event is described in Part Two. More than forty years earlier, John Ward had recruited volunteers to demonstrate his cork-jacket while swimming in the Thames from Blackfriars Bridge to London Bridge – a good location to attract a group of curious onlookers. The activities of John Ward are narrated in Part One.

Inventors of the Cork Lifejacket



Figure 2: Assyrian soldiers swimming across a river.

Sculpted stone wall panel, ca. 865 BC–860 BC.

The British Museum, London, museum number 124543.

Image from the online catalogue, reproduced for research purposes.

The soldiers are holding on to inflated animal skins for use as flotation devices.

2. Flotation Devices from Ancient Times

A description of the use of cork as an aid in swimming appears in chronicles of ancient Roman history. An account of the life of the Roman statesman Marcus Furius Camillus (ca.448–ca.365 BC), written by Plutarch, tells that, during the siege of Rome by the Gauls (ca.400 BC), a youth, Pontius Cominius, volunteered to carry a message to the defenders imprisoned in the Capitol:

Under the coarse garments which he wore, he carried some pieces of cork. The greater part of his journey was made by daylight and without fear; but as night came on he found himself near the city. He could not cross the river [the Tiber] by the bridge, since the Barbarians were guarding it, so he wrapped his light and scanty garments about his head, fastened the corks to his body, and thus supported, swam across, came out on the other side, and went on towards the city.⁴

More than four hundred years earlier, the army of the Neo-Assyrian Empire made use of inflatable flotation devices in their military campaigns. This is depicted on a sculpted stone panel in the British Museum, dated 865 BC–860 BC, showing Assyrian soldiers swimming across a river while holding on to inflated animal skins (Figure 2).⁵

These examples highlight the ingenious solutions for preventing drowning that were known to the maritime cultures of ancient civilizations. However, in past eras, the design of life preserving devices for mariners tended to inspire limited interest. The well-researched history *Designed for Life: Lifejackets Through the Ages*, by the Navy Captain and physician Christopher Brooks, published in 1995, has a chapter titled: “Slow progress in the first 5000 years, better progress in the last 50.” Brooks commented that, in earlier times, an aid for survival at sea was that “wooden ships sank slowly and there were always wooden casks and parts of the ship on which to cling”⁶ (a scene depicting this drama is shown in the painting in Figure 11).

3. The Cork-Cutter's Trade

A portrayal of the bustle of commercial activity in Georgian London, given in a poem titled *London's Summer Morning*, written by Mary Robinson in about 1795, recognized the role of cork-cutters in the excerpted lines:

Who has not waked to list the busy sounds
Of summer's morning, in the sultry smoke
Of noisy London? . . . Now begins
The din of hackney-coaches, waggons, carts;
While tinmen's shops, and noisy trunk-makers,
Knife-grinders, coopers, squeaking cork-cutters,
Fruit-barrows, and the hunger-giving cries
Of vegetable-vendors, fill the air.⁷

In England, the first cork-cutting workshops started to operate in London at the end of the seventeenth century. Cork, obtained from the bark of a type of oak tree that flourishes around the Mediterranean and Portuguese coast (Figure 3), was valued for a variety of uses including as a bottle sealer, such as wine corks, and for the inner soles of shoes. The interest in cork-cutting spread and, during the eighteenth century, workshops were established in many towns throughout Britain.⁸

In the 1804 London publication of *The Book of Trades, or Library of the Useful Arts*, a section on the cork-cutter's trade was accompanied by an illustration of a cork-cutter's workshop with cork lifejackets hanging from the ceiling (Figure 4).⁹ This reveals that, at this time, it was recognized that the life preserver had a role in the range of products offered by a skilled cork-cutter.

In the 1810s, the trade card of the London cork-cutter Henry Coe advertised "Cork Jackets on the best principle" (Figure 5).¹⁰ Coe's business was located in Crooked Lane, Cannon Street, near the north end of London Bridge and the Monument to the Great Fire of London. Possibly his lifejackets were made to the design outlined in *The Book of Trades, or Library of the Useful Arts*. Coe may also have been inspired by the cork-jacket designs being developed by Mallison whose workshop was located nearby at St Michael's Alley, Cornhill. Mallison's tireless work in promoting his life preserver named the "Seaman's Friend" is featured in Part Two of this study.



Figure 3: Two workers cutting bark from a cork oak.

Antique engraving illustration from *The American Cyclopædia*, Vol. 5, 1879, p. 356. Image from Wikimedia Commons, in the public domain.

The article to accompany the illustration explained:

Cork – the soft elastic bark of a species of oak (*quercus suber*) which grows abundantly in Spain, Portugal, Italy, Algeria, and the south of France. Commerce is indebted to Portugal for its largest supply.

When the tree is 15 years old the barking is commenced, and may be repeated every eight or ten years afterward, the cork increasing in quantity though not in quality at each operation. Trees thus barked will, it is said, live 150 years. The cork is removed from the trees in July and August.

Inventors of the Cork Lifejacket



Figure 4: A cork-cutter's workshop.

Illustration from *The Book of Trades, or Library of the Useful Arts*, London, 1804.

The illustration shows the cork-cutter working with a knife. The manual observed that “the knives used in the operation have a peculiar construction, and they must be exceedingly sharp.” The items hanging from the ceiling are flotation devices or lifejackets designed to assist a wearer to keep afloat in water. The text to accompany the illustration explained:

The cork waistcoat is composed of four pieces of cork; two for the breasts, and two for the back, each nearly as long as the waistcoat without flaps. The cork is covered, and adapted to fit the body. It is open before, and may be fastened either with strings, or buckles and straps. The waistcoat weighs about twelve ounces, and may be made at the expense of a few shillings.



Figure 5: Trade card for Henry Coe, cork-manufacturer, London, ca. 1812.

The British Museum, London, museum number Heal,50.1.

Image from the online catalogue, reproduced for research purposes.

Inscribed on the trade card is the information:

H. Coe (late apprentice to J. Freeman Junr)

Cork-Manufacturer, No. 1 Crooked Lane, near the Monument.

Corks shipp'd for the East & West Indies.

N.B. Cork Jackets on the best principle.

PART ONE

Eighteenth Century

1. Prologue

A dramatic account of the effectiveness of a lifejacket, made with cork for buoyancy, for saving the lives of mariners was chronicled in 1760, the year George III ascended the throne as King of Great Britain and Ireland. On 3rd November of that year, the fourteen-gun ship the *Ann*, sailing from Liverpool for Cork and then Guadeloupe in the Caribbean, was caught in a fierce storm in Caernarfon Bay, along the coastline of the island of Anglesey, off the north-west coast of Wales. The ship ran aground and was wrecked; eighteen of the thirty-seven crew drowned. Captain Seth Houghton attributed his survival to wearing a cork lifejacket: “the bruises I received on quitting the ship, two of my ribs being broke, soon rendered me insensible and incapable of helping myself, and if it had not been for the cork jacket, I must have inevitably perished.”¹

2. John Wilkinson (ca.1730–1818)

On 4 January 1758, John Wilkinson, a London medical practitioner, presented a proposal for the cork lifejacket to the London-based Society of Arts (the short name for the Society for the Encouragement of Arts, Manufactures, and Commerce).² His treatise on the usefulness of the cork lifejacket, published in 1759, was titled: *The Seaman’s Preservation: or, Safety in Shipwreck. To which are added, admonitions and precepts, to prevent, by various and easy methods, the diseases incident to seafaring people.*³ On the title page Wilkinson was styled “MB Coll. Sap. Pisan. & FAS.” This gives his educational qualifications as Bachelor of Medicine, Collegium Sapientiae [College of Wisdom] in Pisa, Italy (a record of his education has not been confirmed). The post-nominal letters FAS suggest that Wilkinson was a Fellow of the Antiquarian Society of London.⁴

Inventors of the Cork Lifejacket

John Wilkinson, born about 1730, was from a family settled in the area of Leigh, then a town in Lancashire, now part of Greater Manchester.⁵ Possibly his medical studies in Pisa provided an opportunity for experiencing the tourist attractions of the Grand Tour. At his home in London, his collections included a few Roman antiquities.⁶

On reading *The Seaman's Preservation*, Laurence Sullivan (ca.1713–1786), the chairman of the East India Company, sent Wilkinson a letter giving a description of a Chinese invention for a life preserver which he conceded: "I think very far inferior in all respects to the ingenious invention you recommend." Sullivan recounted that in 1730 he was a passenger on a ship sailing from Java to China with a group of English, Chinese and Portuguese, when, near the coast of China, the ship was tossed around by a typhoon:

We consequently were consulting our preservation. The English and Portugueze [sic] stood in their shirts only, ready to be thrown off, but the Chinese merchants came upon deck not in a cork-jacket, but I will call it a Bamboo-habit which had lain ready in their chests against such dangers; and it was thus constructed: four bamboos, two before and two behind their bodies, were placed horizontally, and projected about 28 inches; they were crossed on each side by two others, and the whole properly secured, leaving a space for their body, so that they had only to put it over their heads and tie the same securely, which was done in two minutes, and we were satisfied they could not possibly sink.⁷

On 28 April 1762, John Wilkinson was elected a member of the Society of Arts, proposed by Robert Marsham, 2nd Baron Romney, the society's President. The membership record noted that Wilkinson's London address was Gloucester Court, St James's Street, near Piccadilly.⁸

John Wilkinson continued to promote the cork lifejacket (illustrated in Figure 6) in his sequel book series: *Tutamen Nauticum: or, The Seaman's Preservation from Shipwreck, Diseases, and other Calamities incident to Mariners*, published in London 1763; second edition 1764; third edition 1766.⁹ Now qualified MD, he was elected Fellow of the Royal Society (FRS) in 1764.¹⁰

A glowing endorsement from the Society of Arts was published in the *London Gazette*, 7 April 1764:

The Society for the Encouragement of Arts, Manufactures, and Commerce, having maturely considered the utility of the Cork-Jacket, as

Inventors of the Cork Lifejacket

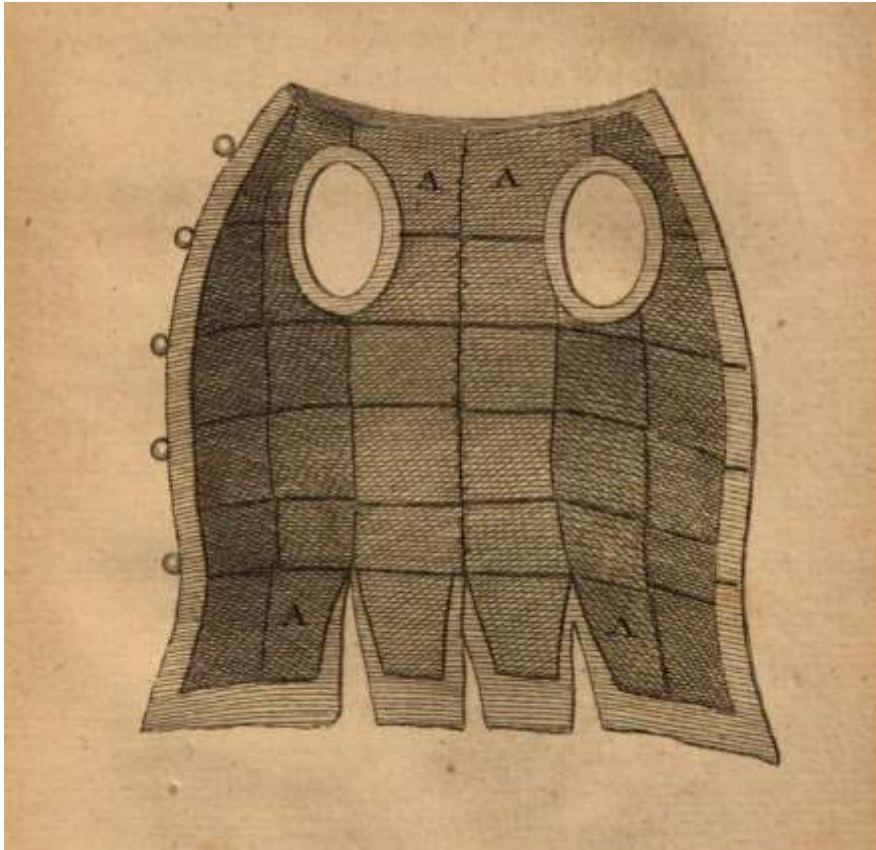


Figure 6: John Wilkinson's design for a cork lifejacket.

Illustration from John Wilkinson, *Tutamen Nauticum: or, the Seaman's Preservation from Shipwreck, Diseases, and other Calamities incident to Mariners*, London, second edition 1764, p. 22.

Google eBook, digitised from the original in the Bibliothèque municipale de Lyon (Lyon Public Library).

The lifejacket was made using four pieces of cork each $\frac{3}{4}$ inch thick, six inches wide, and sixteen inches long, which were fitted to a sleeveless jacket made of "thin sailcloth." The cork pieces were "sewed fast to the inward side of the jacket." The jacket was fastened with cork buttons – three buttons could be made from one bottle cork (Wilkinson, *Tutamen Nauticum*, second edition 1764, pp. 13–14).

Inventors of the Cork Lifejacket

invented and proposed by Dr Wilkinson, for saving the lives of mariners and others; and finding that the said jackets are a very cheap and commodious contrivance, by means of which thousands of valuable lives might be saved when ships are wrecked, foundered, or on fire, were they promoted as they ought to be on board of all vessels whatsoever, in such a manner as to be in readiness against those too frequent accidents, do therefore earnestly recommend to the care and humanity of merchants, and whomsoever else it may concern, to cause the said Cork-Jackets to be always duly provided on ship-board, so as to be in constant readiness, and of general use among seafaring people, that those who are in the above-named calamitous circumstances, may be saved by this important contrivance. By Order of the Society, Peter Templeman, Secretary.

In the introduction of *Tutamen Nauticum* (the Latin phrase for a “seaman’s preservation”), second edition 1764, Wilkinson observed that, shortly after his proposal was presented in 1758, someone else started to produce and advertise the cork-jacket as their own invention. Wilkinson wrote: “I am, doubtless, obliged much to him for the favour he has done me in fathering my child.” This may have been intended as a facetious remark – Wilkinson went on to register a patent for his invention, as described in the next section. Although not named by Wilkinson, the cork-jacket maker was most certainly John Ward, who would have been about twenty years old in 1758.

3. The Rivalry with John Ward (ca.1738–1778)

John Ward ran a business providing the general services of a cork-cutter with a specialty in making and selling cork-jackets. His warehouse, fronted by a sign painted with a picture of a cork-jacket,¹¹ was located in the Borough High Street, on the south bank of the River Thames, which connected to London Bridge, leading to the City of London on the north bank. The trade card of John Ward featured a print of a cork-jacket at top center (Figure 7). He advertised in the *Gazetteer and New Daily Advertiser*, London, 20 August 1764:

Cork Jackets for swimming, or a preservation for seamen in case of shipwreck (as approved by the Society of Arts) by the Inventor and Proprietor, John Ward, at his Warehouse, the Sign of the Cork-Jacket, the foot of London Bridge, Southwark. The Jackets from 10s. 6d. to 1l. 1s. Cork Shoes four and five shillings a pair. Noblemen and others, by sending a

Inventors of the Cork Lifejacket

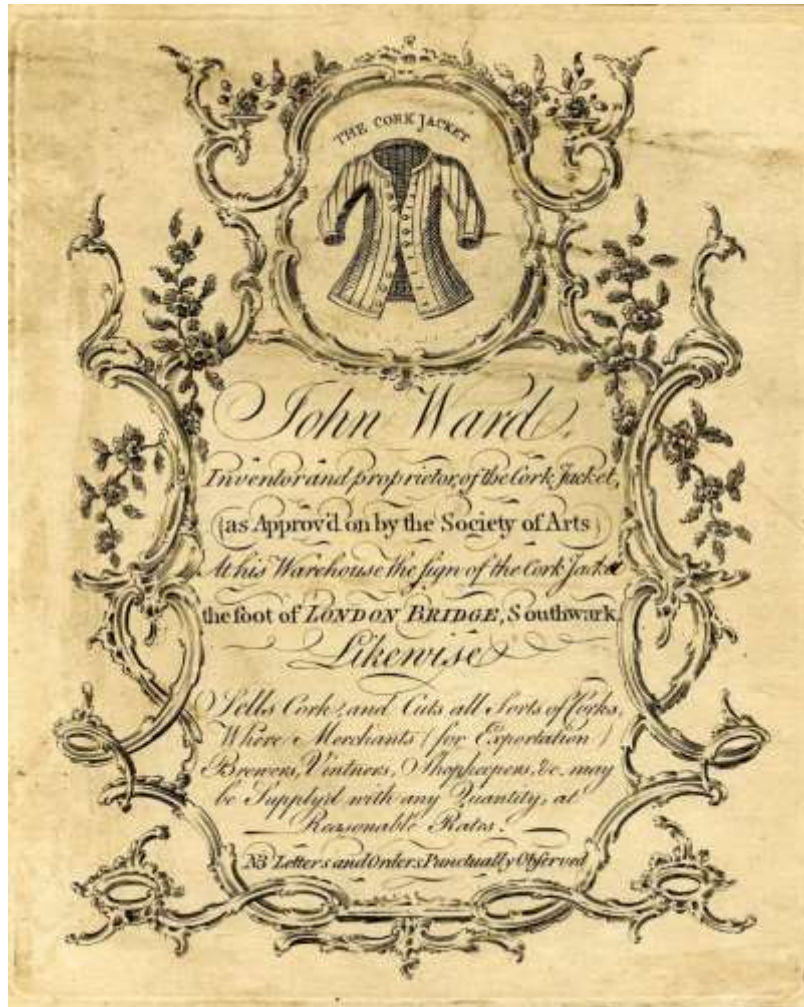


Figure 7: Trade card for John Ward, London, ca. 1760s.

The British Museum, London, museum number Heal,50.11.

Image from the online catalogue, reproduced for research purposes.

Displayed at top center is a print of a cork-jacket “made of sundry pieces of cork, sewed up in linen or canvas.”

Inscribed on the trade card is the information:

John Ward, Inventor and proprietor of the Cork Jacket, (as approved on by the Society of Arts), at his Warehouse the sign of the Cork Jacket the foot of London Bridge, Southwark. *Likewise*, Sells Corks, and cuts all sorts of Corks, where Merchants (for exportation), Brewers, Vintners, Shopkeepers, &c. may be supplied with any quantity, at reasonable rates.

N.B. Letters and Orders punctually observed.

Inventors of the Cork Lifejacket

line, will be waited on and fitted in the compleatest manner. Merchants and Captains of Ships may be supplied with any number on the shortest notice. Likewise Cork, and Corks Wholesale and Retale [sic] and for Exportation, on the lowest terms.

One month later, the 25 September issue of the same newspaper gave more details about John Ward's life preserver:

The cork jacket is made of sundry pieces of cork, sewed up in linen or canvas, is put on in an instant, and is no hindrance to any person's walking, going aloft in a ship, or doing any part of his business; it is impenetrable to a stroke of a broad sword, and will resist the force of a pistol-ball at a small distance; and in case of shipwreck, defends the wearer's body against any craggy rocks on the sea shore.

Wilkinson, rankled by the upstart Ward, was determined to gain recognition and credit for his role as the original inventor; on 25 May 1765 he registered a patent for his design of:

floats made of cork, in form of seamen's waistcoats or otherwise, to be used [on the River Thames] or elsewhere to prevent drowning, as also by seamen or persons using the sea in time of shipwreck or other accidents on water, in a manner never practised by any other person or persons whatsoever until the discovery thereof made six years ago by me.¹²

It appears that John Wilkinson made a business alliance with some skilled cork-cutters and crafts people to execute his designs. A notice in the *Public Advertiser*, London, 6 August 1767, gave directions to distribution outlets for the Wilkinson-approved lifejackets:

Jackets (as now authenticated by the King's Patent) Those who choose to buy them are requested to apply to Mr Bryant, Trunk-maker, in St Paul's Churchyard; or to his other Shop, in Cockspur Street, Charing Cross; or to Mr Swift, Trunk-maker, near the India House, Leadenhall Street. N.B. The Patent Cork-Jackets are not sold in the Borough, or any other places than those mentioned above; therefore others are spurious, and actionable.

The postscript warned that cork-jackets should not be purchased in the Borough, which was the Southwark location of the cork-jacket warehouse of John Ward. This highlighted

the business rivalry between John Wilkinson and John Ward that was to continue into the next decade.

A possible manufacturer associated with Wilkinson was the cork-cutter David Knolton who advertised that he was a maker of “Cork Waistcoats or Jackets” in a notice for his newly established business printed in the *Lloyd’s Evening Post*, London, 19 June 1765:

To all Merchants, Captains of Ships, Brewers, and Others, Cork and Corks sold wholesale and retail, at the lowest prices, facing All Hallows’s [Bread Street] Church, in Watling Street, newly opened; where all orders will be gratefully acknowledged and punctually obeyed,

By your most obedient humble servant, David Knolton.

N.B. Cork Waistcoats or Jackets; also a large quantity of gooseberry and preserve bottle corks, very reasonable; and all orders from country shopkeepers, and others, will be punctually answered, and hawkers served on reasonable terms.

Knolton’s cork-cutting workshop in Watling Street was near Bryant’s trunk-maker shop in St Paul’s Churchyard, the retailer for the Wilkinson-approved lifejackets; so it would have been convenient for Bryant to use Knolton as his lifejacket supplier. David Knolton may have been the son of William Peter Knolton who ran a cork-cutter business in Mark Lane, near the church of All Hallows Staining.¹³

John Ward conducted trials on the River Thames to test the effectiveness of his cork-jacket construction. For example, a notice was placed in the *Gazetteer and New Daily Advertiser*, London, 21 June 1765:

Mr John Ward, the inventor of the Cork-Jackets, will, at the particular desire of several of the Nobility and Gentry, give a public exhibition tomorrow morning, at eleven o’clock, from Blackfriars Bridge to London Bridge; on which occasion, it is to be hoped that all boats, &c. will keep at a proper distance, not to hinder the swimmers.

In the London news media John Ward posted that he was available for business meetings every day except Sunday, from twelve to three in the afternoon, at the Royal Exchange, Cornhill, or, nearby, at the Jerusalem or New York coffee-houses.¹⁴ The

Jerusalem coffee-house of Fleece Passage, Cornhill, later known as 32–33 Cowper’s Court, was frequented by managing owners of ships of the East India Company.¹⁵

Despite the patent of John Wilkinson, John Ward continued to represent himself as the “real inventor” of the cork lifejacket. For example, the *Gazetteer and New Daily Advertiser*, London, 21 September 1770, advertised “Cork Jackets made by John Ward, the real inventor, which have proved their superiority over every other inventor, for a preservative from drowning.”

Possibly it was Wilkinson, with the academic training, who formulated the idea; but it was Ward, with the entrepreneurial spirit combined with business acumen, who put it into production. A view on entrepreneurship expressed by a writer in 1857 was: “it is not the person who offers a casual suggestion, but he who puts it into practice in the steady prosecution of a settled object, that is really entitled to the credit of any important invention.”¹⁶ The rivalry between Ward and Wilkinson may have served as a motivation to spur each other on to refine, develop and market their model of a life preserver for mariners.

In the 1770s, the cork-jacket warehouse of John Ward was located at No. 21 Borough, near the south end of London Bridge.¹⁷ The *London Gazette*, 1 May 1773, advertised that his cork-jackets could also be purchased at the shop of the trunk-maker John Clements at the “corner of Saint Paul’s church yard.” A few days later, the 4th May issue of the *London Gazette* printed a notice that the Wilkinson brand cork-jackets were sold at the trunk warehouse of James Bryant.

Lowndes’s *London Directory* for 1774 revealed that Ward’s supplier John Clements was located at No. 6 Cheapside, while next door, at No. 5 Cheapside, was the premises of James Bryant, Wilkinson’s stockist. The appearance is that John Ward, the sharp businessman, recognized the competitive advantage of providing an outlet for his products in the same street as his business rival – a business strategy used by retail stores today.

Ward’s activities were a nagging irritant to Wilkinson – in the *London Gazette* notice of 4 May 1773, Wilkinson proclaimed defiantly that the cork-jackets sold at Bryant’s shop were the only reliable brand and “all others are dangerous and unwarrantable impositions; which it is to be suspected, vile lucre, rather than humanity, has prompted some evil-minded bungling persons to counterfeit.”



Figure 8: Trade card for James Bryant, trunk maker, London.

The British Museum, London, museum number Heal,120.12.

Image from the online catalogue, reproduced for research purposes.

From the mid-1760s, James Bryant's shop sold the cork lifejackets designed by John Wilkinson. Inscribed on the trade card is the information:

Jame Bryant, Trunk Maker, at the Trunk & Bucket, the corner of St Pauls, facing Cheapside, London. Makes & sells all sorts of campaign trunks, gilded nest of trunks, portmanteau trunks, & leather portmanteaus, leather bags, cloth cloak bags, fire buckets, plate cases, peruke [wig] boxes, and all sorts of leather ware. Also valles [valises] for bedding canteens &c. Wholesale & retail at reasonable rates. N.B. Kitchen hampers & powder bags.

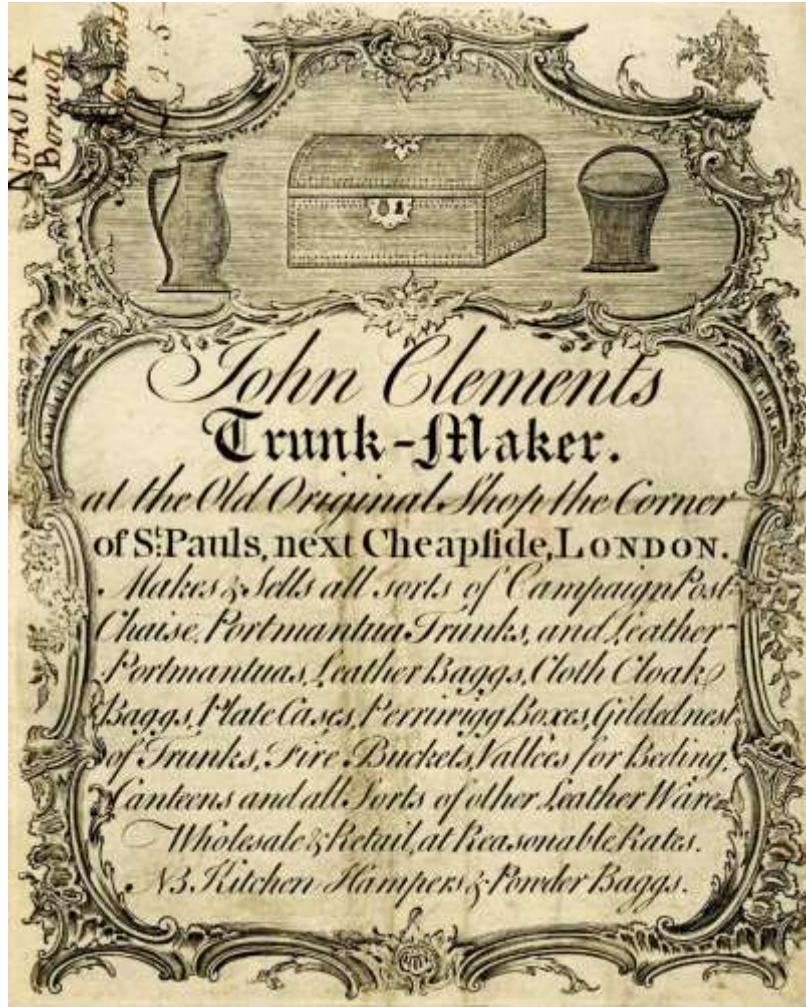


Figure 9: Trade card for John Clements, trunk maker, London, dated 1762.

The British Museum, London, museum number Heal,120.19.

Image from the online catalogue, reproduced for research purposes.

In the 1770s, the shop of John Clements served as a retail outlet for the cork lifejackets manufactured at John Ward's warehouse in Southwark. The shop, at "the corner of St Pauls, next Cheapside, London," was next door to the trunk maker shop of James Bryant where the lifejackets invented by John Wilkinson, Ward's competitor, were sold.

The list of items advertised on the trade card of John Clements generally matches the list on the trade card of James Bryant (Figure 8) to suggest that the two shops catered to a similar customer base.

Inventors of the Cork Lifejacket

A marketing strategy used by the two competing lifejacket creators was to attach a custom label to their product – a familiar feature of sportswear branding today. The *London Gazette* notice of 1 May 1773, extolling the superior quality of the lifejacket produced by John Ward, stated: “To prevent impositions on the public, each Jacket is marked with the Proprietor’s Name.” Wilkinson’s brand, sold at Bryant’s trunk-maker shop, was advertised in the *London Gazette*, 12 June 1773: “Cork-Jackets, by His Majesty’s Royal Letters Patent. ... Each Jacket is marked with the Name and Crest of the Inventor, all others are to be justly suspected.”

John Ward, only forty years old when he died, was buried on 18 December 1778 at St Saviour’s Church, Southwark (now Southwark Cathedral).¹⁸ On the day before the funeral, a death notice published in the *Public Advertiser*, London, conveyed that his life had been devoted to building up the business of his cork-jacket warehouse:

On Thursday the 10th instant died, in the forty-first year of his age, Mr John Ward, of the Borough of Southwark, Inventor and Proprietor of the Cork Jackets. The business in that, and all other branches of the Cork Trade, as carried on by him in his lifetime, will be continued at the same place by his executors.

His will mentioned no wife or children. The respect he had for his employees was expressed in his will by a generous gift: “I give to each of my work people male and female that shall be employed in my service at the time of my decease the sum of five pounds.” Another bequest to Malcolm Hamilton, a merchant of Lothbury in the City of London, was “the horse I usually ride with the saddle and bridle.”¹⁹ This suggests that John Ward rode his horse for his daily commute across London Bridge to the Royal Exchange.

4. French Inventors

In 1750 a member of the Royal Academy of Sciences at Paris made a favourable report of an “invention for preserving sailors in case of shipwreck” proposed by Grossin de Gelacy, a “colonel in the French service and a native of Wales,” who served in the rebellion of 1745 launched in Scotland by Charles Edward Stuart, grandson of King James II and a claimant to the throne of Great Britain. The device invented by de Gelacy:

. . . takes up so little room, is so cheap in its construction, and may with so much ease and celerity be made use of, that no sailor need be unfurnished with it; and as it will preserve every man who uses it from sinking, no such man can be lost by shipwreck, unless he dies of hunger or cold before he can reach the land, or be taken up by some passing ship.²⁰

More description of Colonel de Gelacy’s lifejacket, made with cork, was given in the *History of the Royal Academy of Sciences at Paris* for the year 1757:

This tunic is made of canvas, or strong linen cloth, furnished with several pieces of cork, wrapped up in the same cloth, and fastened thereto by pieces of tape, which have the effect of so many turning joints or hinges.²¹

This raises the question: was the work of Wilkinson influenced by the lifejacket design created by de Gelacy?

In 1768 the French priest and mathematician, Abbé Jean-Baptiste de la Chapelle, designed a cork personal flotation device (Figure 10) that he called the scaphandre – an English translation is diving suit.²² As author of the book titled *Institutions of Geometry*, he had been elected Fellow of the Royal Society of London in 1747.²³ His book on the scaphandre, *Traité de la construction théorique et pratique du scaphandre ou du bateau de l’homme*, published in Paris in 1775, can be found in the British Library catalogue. Wilkinson dismissed this work as “stolen from the English Jacket, which was debauched and prostituted by this pretended fantastical French plagiary.”²⁴

The vitriol expressed by Wilkinson may be an unfair portrayal of the accomplishments of the Abbé la Chapelle who may have been a methodical researcher inspired by the initiative of de Gelacy and possibly others. In the development of new products the contributions and sharing of ideas of a number of competing designers are valued to make progress – a reality not greatly appreciated by Wilkinson.

Inventors of the Cork Lifejacket



Figure 10: Jean-Baptiste de la Chapelle's design for a "flotation suit" made with cork.

Engraving illustration from the German translation of the work by Jean-Baptiste de la Chapelle, *Traité de la construction théorique et pratique du scaphandre*, published in Warsaw, 1776.

Image from Wikimedia Commons, in the public domain.

A whimsical feature is that the man at the right has a swan perched upon his head.

5. More Developments in London from John Wilkinson and New Rivals Macpherson and Bell's Cork-Jackets

John Wilkinson carried on with his mission to bring attention to the merits of his cork lifejacket. In the *Whitehall Evening Post*, London, 9 March 1780, he gave some informative commentary along with an announcement that the 6th edition of his book *Tutamen Nauticum* was in preparation. To present a case for the adoption of the lifejacket he noted that in the last four months of the year 1779, 560 British seamen were drowned; lives may have been saved with the use of cork-jackets. An example Wilkinson referenced was the sinking in flames of the British Royal Navy frigate *Quebec* that was battered in battle with the French Navy warship *Surveillante* on 6 October 1779 off Ushant, a French island at the south-western end of the English Channel (Figure 11). Only sixty-six out of about 195 men on board were picked up by rescue boats; the rest, including the commander Captain George Farmer, perished.²⁵ Wilkinson appended that as well as a life preserver to prevent drowning the “cork jackets are a good armour in battle, resisting small bullets, splinters, &c. and when ships are blown up or on fire, may save many lives.”

In the 1780s another inventor came on the scene with a keen interest in the design of a better cork lifejacket. R. Macpherson's research was published in London in 1783 as the book *A dissertation on the preservative from drowning; and swimmer's assistant*. In the introduction he explained that, in 1779, when convalescing from an injury he was motivated by the newspaper accounts of the death of Captain George Farmer, described above, to immerse himself in studying the design of devices to save lives from drowning.

Macpherson, recognizing that cork had excellent properties for a life preserver, criticized the available cork-jackets as too bulky and a hindrance to swimming. A wearer of the jacket was forced to lie horizontally on the water and could not tread water in an upright position. Macpherson's aim was to develop a more light weight product that would allow mobility in water and assist swimming. He carried out experiments to determine an optimal quantity of cork to use, and to devise an efficient jacket design. A drawing of his new model lifejacket is illustrated in Figure 12. Tradesmen were employed to manufacture his designs and trials were made on the River Thames with swimmers passing through the center arch of London Bridge where the turbulence of the water compared to conditions on the coastal sea.²⁶

On 26 November 1783, Macpherson gave a talk to the London Society of Arts on his work in developing a life preserver for use at sea.²⁷ He was commended for his initiative



Figure 11: The British Royal Navy frigate HMS *Quebec* in flames, 1779.

Painting by Robert Dodd, 1781.

National Maritime Museum, Greenwich, London, ID: BHC0426.

Image from Wikimedia Commons, in the public domain.

Newspaper accounts of the sinking of the *Quebec*, with the loss of life of over one hundred men, including the commander Captain George Farmer, prompted Macpherson to embark on research to design a lifejacket to save lives from drowning.

The painting depicts the action in the naval battle of 6 October 1779 between the *Quebec* and the *Surveillante* (on the left) of the French Navy. The battle ended in a French victory after a fire on the *Quebec* spread to its magazine; the explosion destroyed the ship. In the left foreground sailors are clinging to the wreckage of spars and sails, while on the right a rescue boat picks up survivors.

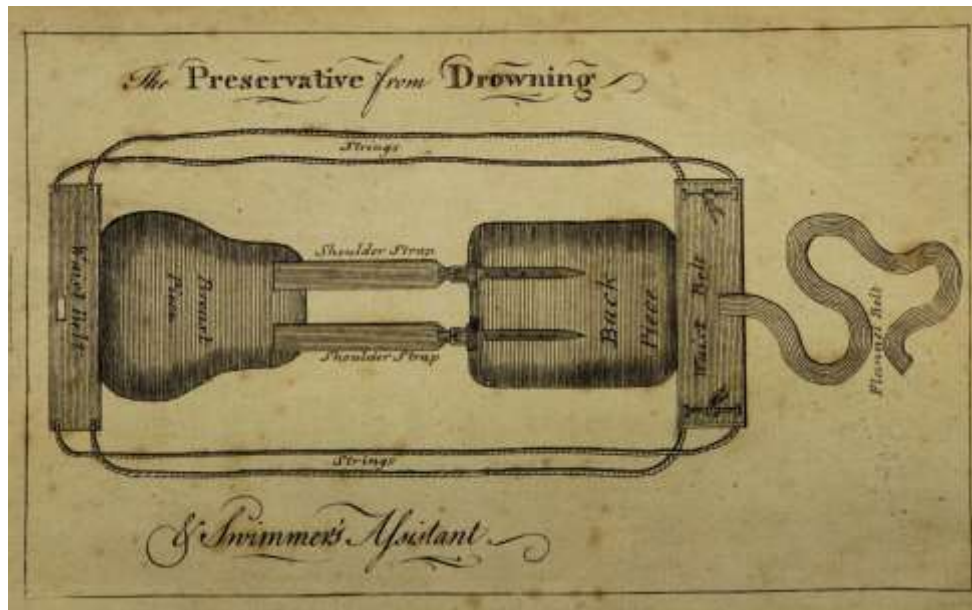


Figure 12: Macpherson's design for a cork lifejacket.

Frontispiece of R. Macpherson, *A dissertation on the preservative from drowning; and swimmer's assistant*, London, 1783.

The Wellcome Collection, London.

Image from the online catalogue, in the public domain.

The lifejacket was constructed from two sheets of cork, one shaped for the front (the “breast piece” at the left of the diagram) and the other for the back (at the right), covered with canvas, joined together by shoulder straps fastened with buckles. At the waist, a broad belt was attached to the cork pads, secured and fitted at the sides by strings. At the right, attached to the back belt, is a long strap made of flannel. When needed as a life preserver, “the flannel belt is brought forward between the thighs, laced through its corresponding button hole in the breast belt, and there tied with only one knot.”

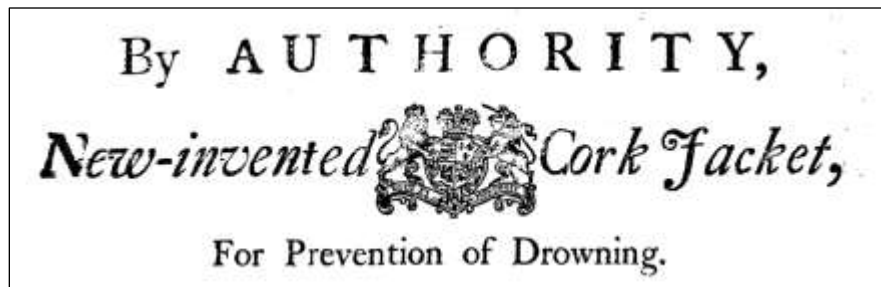
Macpherson informed: “Upon any sudden occasion, this Preservative can be instantly thrown over the head, . . . the head passing through between the strings and shoulder straps.”

Macpherson recognized that new users of the lifejacket needed to be given a demonstration (as is familiar to airplane travellers today): “The method of lacing and tying these belts and strings, though simple and quick, may not occur to every one, and therefore each person, at first providing himself with the Preservative, should be shown how it is fitted and put on the body” (Macpherson, *A dissertation on the preservative from drowning*, pp. 17–18).

by the Marine Society, a charity established in London to train boys for a career at sea in the Navy.²⁸

For the cork-jacket makers, a lucrative contract would have been to supply the Royal Navy. However, both Wilkinson and Macpherson were informed of objections to naval ships of war carrying a stock of cork-jackets as this would enable a common seaman to grab a lifejacket and desert by jumping ship.²⁹ Macpherson expressed his hope that “in time, these preservatives will be much encouraged on board ships of war.”³⁰

The London sales centre for the Macpherson style lifejacket was Bell’s Cork-Jacket Warehouse at No. 9 Mill Street near Hanover Square.³¹ Notices were placed in newspapers and a one-page information sheet, printed to promote the cork-jackets, displayed a header with the Royal Arms, lion and unicorn, to suggest a Royal Appointment to King George III:³²



An example of an advertisement was the notice in *Jackson’s Oxford Journal*, 25 June 1791:

By Authority
New-invented Cork Jackets, to prevent drowning.
These Jackets have been honoured with the
approbation of the Nobility and Gentlemen of Distinction;
and are approved and recommended by the Gentlemen of the
Navy: They will be found very convenient for learning to swim,
and many valuable lives which are lost every year, may by the
assistance of these new-invented Jackets, be entirely prevented.
Made by M. Bell, No. 9 Mill Street, Hanover Square,
London; and sold by J. Boswell, Blue-Boar Lane, Oxford.
N.B. May be worn under a coat with ease.

Other promotional ads for Bell’s life preservers stated that cork-jackets could be supplied that were “safe and agreeable” for use when ice skating and “may be worn

under a great coat;" and for fishing a "light neat" cork-jacket was available to wear without a coat.³³

It appears that Bell's cork-jacket enterprise operated to a business plan based on sound research. However, possibly it was founded on innovative ideas ahead of their time. After the mid-1790s no record of the business has been found. For Macpherson, little has been traced about his life.

John Wilkinson died in London at his home in Southampton Row, Russell Square, on 20 August 1818.³⁴ His will mentioned no wife or children. In his will he expressed the desire to be buried in the church of Leigh in Lancashire in the vault near to his father and mother.³⁵ On 3 September 1818, the parish register of St Mary the Virgin's Church, Leigh, recorded the burial of John Wilkinson, aged 88.³⁶ One year later, in October 1819, an auction was held at Sotheby's in London's Strand to sell the "medical and miscellaneous library of the late John Wilkinson, MD, FRS and SA."³⁷

6. Aerial Mariners

There is a record that cork-jackets were carried on board the flights by the pioneer balloonists who became known as aeronauts. A news report of the time referred to the adventurers as aerial mariners.³⁸

On 7 January 1785 Jean-Pierre Blanchard and Dr John Jeffries, travelling in a hydrogen gas balloon, became the first aeronauts to cross the English Channel. When they took off from Dover their cargo included two cork-jackets. As they approached the coast of France the balloon lost altitude; the pair put on their cork-jackets and began tossing items overboard to lighten the airship and remain aloft. In a moment of desperation Blanchard cast away his trousers. Their efforts were successful and the balloon was soon over land. Now in danger of crashing into trees, to further reduce the load, they threw off their cork-jackets since they were no longer at risk of falling into the sea. They finally navigated the balloon to a safe landing near Calais.³⁹ Although not confirmed, it can be surmised that the aeronauts may have purchased their lifejackets at Bell's warehouse in London.

Vincent (Vincenzo) Lunardi, born in Italy, lived in London where he was secretary to the Neapolitan ambassador and was celebrated for his balloon flights. In Scotland, on Wednesday the 5th of October 1785, Lunardi flew across the Firth of Forth. In preparation for the journey, a Dr Rae provided him with a cork-jacket.⁴⁰ Dr James Rae (1716–1791), an

Inventors of the Cork Lifejacket



Figure 13: First balloon flight over the English Channel, 1785.

Hand-coloured etching, 1785.

Library of Congress, Washington DC, control number 2003674134.

Image from the online catalogue, in the public domain.

The print shows Jean-Pierre Blanchard and John Jefferies arriving in Calais after crossing the English Channel in a hot air balloon on 7 January 1785. On board the flight, they carried two cork lifejackets.

Inventors of the Cork Lifejacket

Edinburgh surgeon, had sons William and John who were admitted fellows of the Royal College of Surgeons of Edinburgh in 1777 and 1781 respectively.⁴¹ As William Rae settled in London it can only be speculated that he may have purchased the life preserver for Lunardi from Bell's cork-jacket workshop. During the balloon flight the cork-jacket came to use when, sailing above the water, dangerous winds were encountered and Lunardi recalled that:

. . . to prepare for the worst, I took off my uniform and put on the cork jacket, and then threw out a whole bag of sand, on which the Balloon instantly ascended to an astonishing height.⁴²

Lunardi and his hydrogen balloon touched down in a field where a plaque was placed to commemorate the event.⁴³

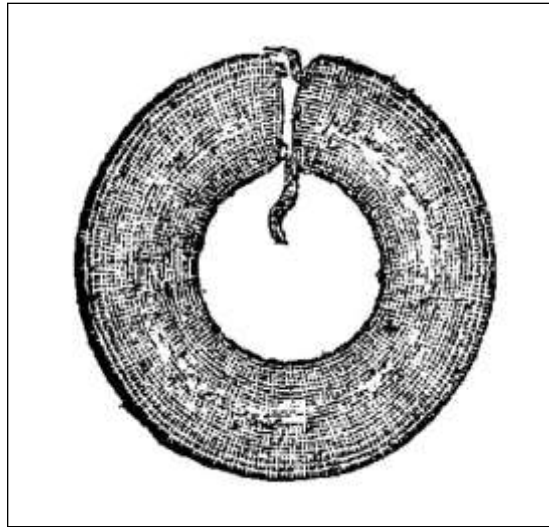


Figure 14: Abraham Bosquet's design for a life preserver ring.

Illustration from Abraham Bosquet, submission to the editor dated February 1802, *The Naval Chronicle*, London, Vol. 7, January to July 1802, p. 134, (reprinted Cambridge University Press, 2010).

For saving lives at sea when ships are in distress, Bosquet proposed a life ring, worn around the mid section, made from:

strong close nets or canvas bags of dimensions, when stuffed with cork-shavings, equal to about that of a bed bolster, coiled or formed in this manner, like a collar, and sufficiently wide for the head and shoulders to pass through, or be put on and off by straps and buckles, so that it may occupy the space between the armpits and the loins; this will sustain the person who has it on in an erect posture, and always high above the water, and most essentially protect him from those buffets and bruises on rocks and shelves, which generally prove fatal, not only to the feeble and exhausted, but to the most bold and robust. A woman placed in one of these machines may carry her child or other matter in her arms, and be borne through a surf in safety where a boat could not live, or be preserved in the highest sea as long as hunger and thirst will permit. As the arms will be quite at liberty, a light paddle, with a broad palm, connected to it by a line, might prove useful (Bosquet, *The Naval Chronicle*, Vol. 7, 1802, pp. 133– 34).

PART Two

Nineteenth Century

1. A New Century, New Ideas

In eighteenth century London, the cork-jacket was promoted by the rival inventors John Wilkinson, John Ward, and R. Macpherson, as documented in Part One. In the early nineteenth century, William Henry Mallison emerged as a new cork-jacket innovator. Before giving tribute to the career of Mallison, a look will be given to the proposals of Abraham Bosquet published in 1802 in *The Naval Chronicle*, London.

Bosquet, motivated by concern for the “innumerable lives which are lost in blowing weather on our coasts,” presented a recommendation for ships to be equipped with a supply of canvas-covered life preserver rings “stuffed with cork-shavings” (Figure 14). As an extra feature, he suggested that it would be useful to have a paddle connected to the life ring with a line. Another invention of Bosquet was a life saving float designed for four people to cling to (Figure 15).

The “Monthly list of new publications” given in the 1st of August 1818 issue of *The Scots Magazine*, Edinburgh, reported Bosquet’s writing endeavours:

A series of essays on several most important new systems and inventions, particularly interesting to the mercantile and maritime world; by Abraham Bosquet, Esq. late one of his Majesty’s Commissaries of the Musters.

In his 1802 submission to *The Naval Chronicle*, Bosquet gave an engaging presentation of his ideas; however, it is not known if his designs for life preservers were manufactured, tested, advertised, and marketed. Bosquet died on 28 March 1831; a death notice was printed in *The Nottingham and Newark Mercury*, Saturday, 2 April:

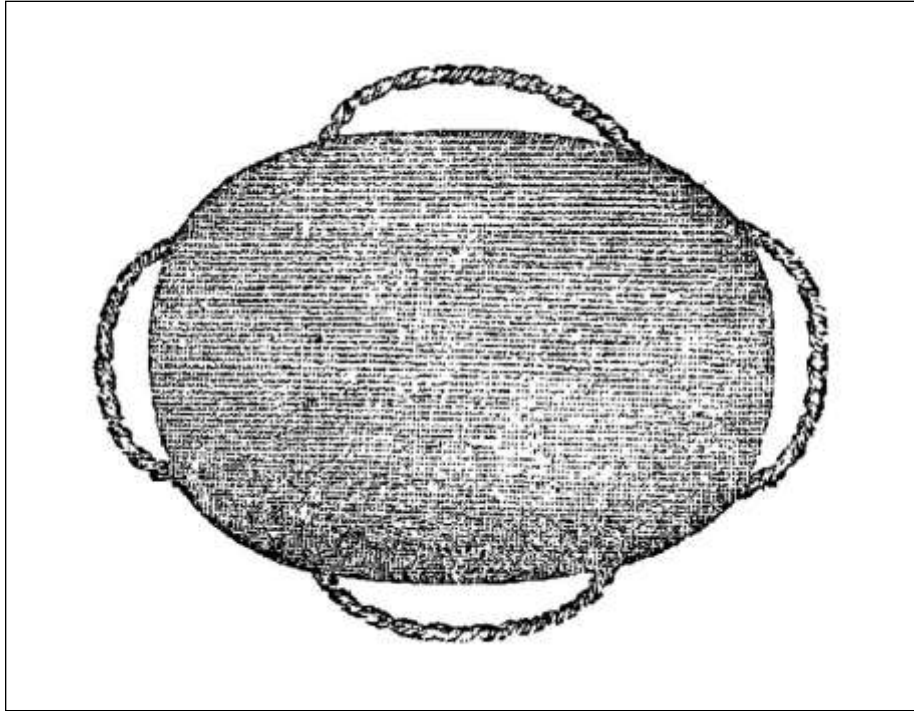


Figure 15: Abraham Bosquet's design for a life saving float.

Illustration from Abraham Bosquet, submission to the editor dated February 1802, *The Naval Chronicle*, London, Vol. 7, January to July 1802, p. 134, (reprinted Cambridge University Press, 2010).

Bosquet described that the canvas-covered life saving float, filled with cork-shavings, was constructed with:

loops connected to the ends and sides, by which four men may be suspended, without the danger of losing their support, either holding by, or placing their bodies between the loops and the machine. Twenty of these I am confident would save eighty people in most cases; and four or more of them united, or linked together, which might be done on the most sudden emergency, or foundering of a ship, would serve as a safe and commodious raft or float, on which many persons, as well as valuable property, might be borne at a time, nor be any way subject to breaking on the rocks, or oversetting, to which boats are so liable (Bosquet, *The Naval Chronicle*, Vol. 7, 1802, p. 134).

On Monday, at New Snenton [Sneinton, a suburb of Nottingham], at the advanced age of 87 years, Abraham Bosquet, Esq., formerly one of his Majesty's Commissaries of the Muster of the Kingdom of Ireland, and well known among naval men as the projector of approved plans for preventing ships from foundering at sea, &c., for which he received several honorary and other rewards from Government.

2. William Henry Mallison (1773–1823)

William Henry Mallison's manual *The Seaman's Friend; or, a certain method by which any person may preserve his life in deep water, and in case of shipwreck* was published in London in 1804.¹ On the title page his address was given as No. 14 Broad Street (now Broadwick Street), in the Soho district of London; and located opposite, at No. 1 New Street (now Ingestre Place), was his lifejacket factory.

Mallison's description of his cork-jacket (Figure 16), which he named the Seaman's Friend, was remarkably similar to the design specified by Macpherson.² However, Mallison did not give any credit to Macpherson, nor did he acknowledge the contribution of Wilkinson who had published a book with multiple editions. What does seem clear is that Mallison, like his predecessors, was energetic, committed, and passionate about developing and promoting a device to help save lives at sea. Mallison's manual listed several of the shipwrecks where a supply of cork-jackets would have been "eminently useful."³

It appears that soon after he published *The Seaman's Friend* Mallison relocated his enterprise to St Michael's Alley, Cornhill in the business hub of London – this was the address given in a review of his invention printed in the December 1804 edition of *The Sporting Magazine*, and remained his business headquarters for the next fifteen years. Readers of *The Sporting Magazine* were given a detailed account of the *Seaman's Friend*, partially excerpted here:

It consists of two simple pieces of cork, placed in such a manner on the human body, as to assist it in swimming either on the back or belly at will, and when tired; admitting of repose; the body remaining perpendicular in the water, and possessing, when so, the free use of the hands, arms, and feet, enabling the wearer to take every advantage of circumstances. . . . The application appears to be at once simple and easy, and consists of two pieces of cork; one acts as a breast-plate, and the other, as a

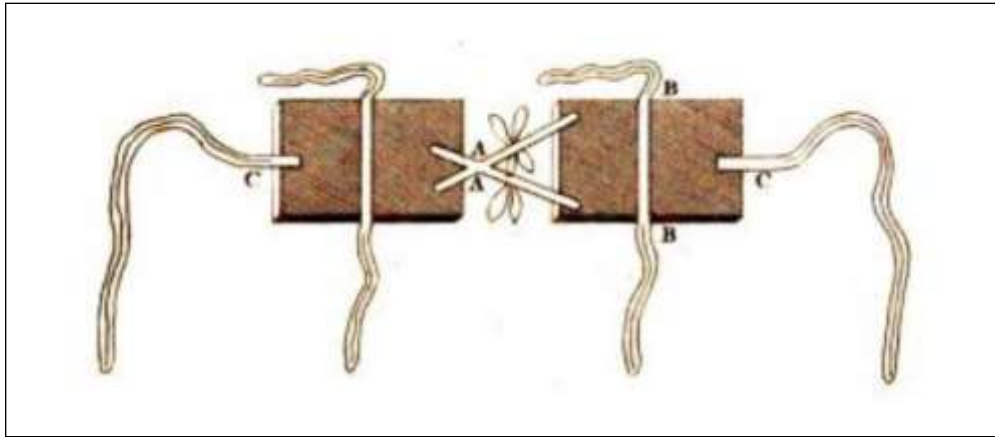


Figure 16: William Henry Mallison's design for a cork lifejacket.

Illustration from William Falconer and William Burney,
A New Universal Dictionary of the Marine, London, 1815, Plate XIV.
Google eBook, digitised from the original in the Austrian National Library.

Mallison named his invention the Seaman's Friend. The text to accompany the illustration described that the lifejacket was made of two pieces of cork, cut for the breast plate and the back-board, covered with fabric and connected over the shoulders by two strong pieces of tape or webbing (label A). The lifejacket was worn by throwing it over the head and then fastening by tying the strings (label B) on each side. The long strap (label C) was passed between the legs and tied in front.

A favourable recommendation was expressed with the lines:

The advantage of this invention, over all others, for a similar purpose, consists in its durability, portability, cheapness, and simplicity; with common care, it will last a man his life-time; it enables him to get through the water nearly as well as the best swimmer, and allows a poor man the advantage of possessing them as well as the rich (Falconer and Burney, *A New Universal Dictionary of the Marine*, London, 1815, p. 441).

Inventors of the Cork Lifejacket

backboard, connected over the shoulders, on each side of the neck, by two strong pieces of tape, fastened on the body, by tying on each side, with two other pieces, and by another piece of tape between the legs. . . . So confident is Mr Mallison of its success, that he engages, in his advertisements, to forfeit 100 guineas, if the person having one of the *Seaman's Friends* on, can ever sink.⁴

A committee appointed by the London Society of Arts agreed that Mallison's "apparatus, called the Seaman's Friend, is useful in preserving the lives of persons in water" and, on 15 May 1806, recommended that the Society award Mallison with the Silver Medal.⁵

In 1807, a one-page information sheet was printed to advertise the cork lifejackets. The header, shown in Figure 17, gave a notice of a public demonstration of the life preserver, planned to feature swimmers leaping from London Bridge into the River Thames. Although the notice stated that three swimmers would be demonstrating the lifejackets, just two volunteers were recruited. According to Mallison, thousands of spectators gathered for the event, with a "liberal contribution among the Nobility and Gentlemen present." An oversight was that he failed to get permission to use London Bridge as a jumping platform. As the swimmers were preparing to jump, one of them was arrested and taken away to prison; the other managed to escape the same fate by quickly leaping into the River Thames and then, as the solo swimmer, travelled downstream for about three miles to complete the trial. This was not as far as Deptford, as advertised in the notice, but Mallison considered the demonstration of his cork-jacket a great success.

As a follow-up trial, Mallison recorded that "on the 28th of July, the same man leaped off the centre arch of Westminster Bridge, a height of sixty feet, and with three others, one a lad of ten years of age, swam as far as Battersea Bridge."⁶ Presumably, the man taken off to prison was released quickly – Mallison gave him £1 for his troubles. The man who made the successful trials, named Mr Blazdell, was paid £1 11s. 6d. after his leap from London Bridge and the same amount again after his leap from Westminster Bridge.⁷

Two years later in August 1809 Blazdell, aged about 60, who had "been at sea for many years," was again hired by Mallison to perform more lifejacket tests on the River Thames. In one demonstration Blazdell jumped off the centre of Westminster Bridge and

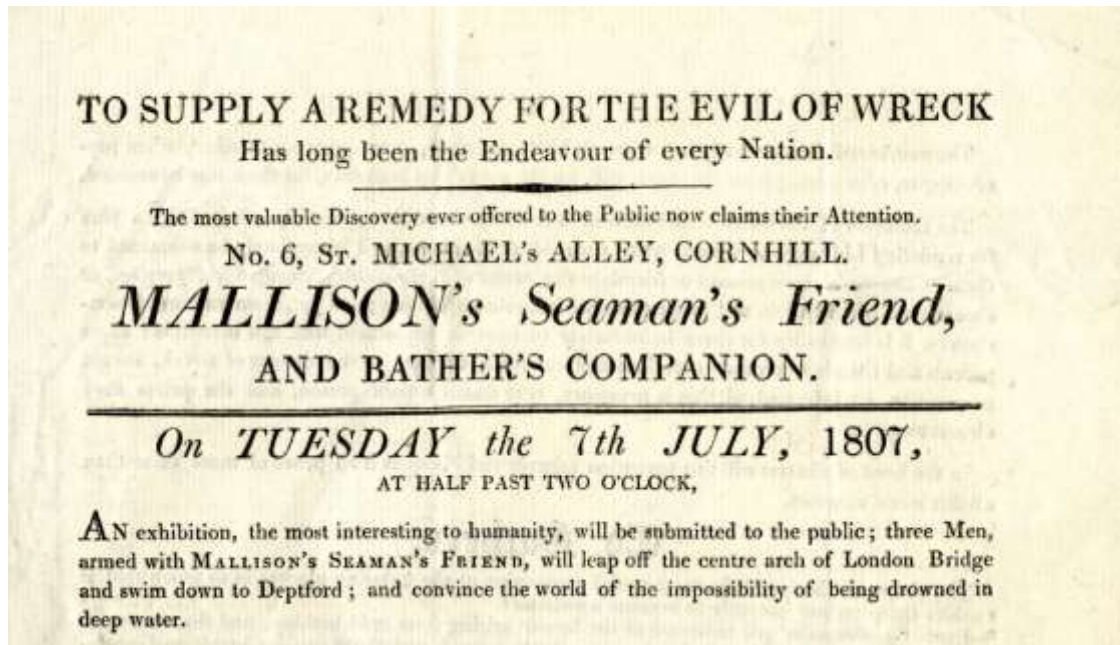


Figure 17: Header on a notice of a public exhibition of Mallison's lifejacket, 1807.

The British Museum, London, museum number Banks,132.78.

Image from the online catalogue, reproduced for research purposes.

A transcription of the notice:

To supply a remedy for the evil of wreck
has long been the Endeavour of every Nation.

The most valuable Discovery ever offered to the Public now claims their Attention.

No. 6, St Michael's Alley, Cornhill.

Mallison's Seaman's Friend,
and Bather's Companion.

On Tuesday the 7th July, 1807,
at Half Past Two O'Clock,

An exhibition, the most interesting to humanity, will be submitted to the public; three men, armed with Mallison's Seaman's Friend, will leap off the centre arch of London Bridge and swim down to Deptford; and convince the world of the impossibility of being drowned in deep water.



Figure 18: London Bridge.

Painting by Joseph Mallord William Turner, ca.1794.

Tate Britain, London.

Image from Wikimedia Commons, in the public domain.

On 7 July 1807, in a public demonstration of the cork lifejacket designed by William Henry Mallison, an intrepid volunteer wearing the lifejacket jumped off London Bridge into the River Thames and swam a distance downstream. In the painting, Turner sketched in a carriage with coachman and passengers travelling over the bridge to give a perspective of the height of the bridge, which gives the appearance that jumping from the bridge for a public exhibition was a rather foolhardy stunt.

The view in the painting looks upstream; Southwark Bridge can be seen in the distance.

The bridge was demolished after a new London Bridge was opened in 1831.

Inventors of the Cork Lifejacket

then swam down to Wapping; in a second display he swam through the great arch of London Bridge while challenged by a strong tidal surge; and at a third event, in the same month, he swam from London Bridge to St Mary's Church, Rotherhithe, on the south bank of the Thames facing Wapping.⁸

Mallison's cork-jackets were designed for different sizes; the 1807 information sheet, referred to above, gave a price list:

No. 1	For youths 14 and under:	£	s.	d.
	Covered with green baize	0	8	6
	Covered with flannel, white straps	0	10	0
	Covered with double flannel, buckles and strap	0	13	6
No. 2	For middling sized men:			
	Covered with green baize	0	11	6
	Covered with flannel, white straps	0	15	0
	Covered with double flannel, buckles and strap	0	18	0
No. 3	For general sized men:			
	Covered with green baize	0	15	0
	Covered with flannel, white straps	0	19	0
	Covered with double flannel, buckles and strap	0	23	0
No. 4	For large heavy men:			
	Covered with green baize	0	18	0
	Covered with flannel, white straps	0	22	6
	Covered with double flannel, buckles and strap	0	28	0

As a reminder about old English money: twelve pence (*d.*) made a shilling (*s.*) and twenty shillings made a pound. There was also a luxury option, price not disclosed, for a jacket "covered with superfine or elastic cloth, with gilt or silver buckles." Possibly the sizing schedule was a work in progress as a different scheme was introduced in an 1810 report.⁹

Mallison's visionary idea that he put forward in 1807, and worked tirelessly to develop, was the founding of a society dedicated to supplying sea-port towns with a store of lifejackets "for the purpose of going to the assistance of vessels when wrecked." The Mallison-designed life preservers, the Seaman's Friend, were to be distributed to coastal communities and kept at the town-hall, church or private houses ready for use in an emergency. As the townspeople recognized the usefulness of this scheme they would be encouraged to make a financial contribution to the society.¹⁰ In efforts to raise funds for the society, Mallison sent a prospectus to potential subscribers.¹¹ In 1808 he made plans

for a tour to the coast of Kent, including the towns of Dover, Deal and Whitstable, followed by a trip to Yarmouth on the Norfolk coast. He intended to ship a selection of his cork-jackets to the destinations on his itinerary to be ready for demonstrations on his arrival and distribute information leaflets to the townspeople he visited.¹²

Mallison documented that the average annual loss of lives by shipwreck on the British coast exceeded 3000 men “whose sudden untimely death involves [their families] in ruin and distress.” He asserted that with his lifejacket lives could be saved and “by preserving the lives of parents and husbands, it will diminish the number of widows and orphans, by the parents unnecessary and untimely death, too often left to a workhouse for support.”¹³

Mallison took on the roles as secretary and treasurer of the society he founded and in 1810 he published a report with financial accounts that revealed that his fundraising efforts had raised £192 5s. 6d. from subscribers. The East India Company contributed £21. Other generous subscribers, each giving £10 10s (10 guineas), were George, the Prince of Wales (later King George IV); Spencer Perceval who became Prime Minister of the United Kingdom in October 1809 (in May 1812 he was shot dead by an assassin); and Henry Phipps, the Earl of Mulgrave, who served as First Lord of the Admiralty. An interesting name on the list of subscribers was Caroline, the estranged wife of the Prince of Wales, who donated £3.¹⁴ Also a subscriber was Mallison’s brother-in-law James Brandon who was the “box bookkeeper and housekeeper” of the Covent Garden Theatre.¹⁵

Another subscriber was George Rose, the member of parliament (MP) for Christchurch, a harbour town in Dorset on the south coast of England. In September 1807 Mallison had made a coach journey to Christchurch to supervise experiments of his lifejacket and consult with George Rose. Rose followed up by submitting a favourable report of the experiments to the Committee at Lloyd’s, the specialists in marine insurance.¹⁶

The lifejacket garnered little favour among naval administrators, as the earlier inventors Wilkinson and Macpherson had found. For the many sailors who were “pressed” into service (by forced recruitment), small value was placed on their lives. A view was that a lifejacket would give an opportunity for a pressed man to jump ship.¹⁷ These sentiments were suggested in a letter dated 21 July 1808 sent to Mallison from the Admiral’s Office, North Yarmouth. The letter acknowledged that the cork-jackets distributed by Mallison had been tested and given very good reports by “several boatmen

and pilots;" however they were not necessary in a "vessel where impressed men are received."¹⁸

In May 1811 Mallison submitted a petition to the House of Commons aimed at obtaining government funding for his society. In response, a parliamentary committee, appointed to review the functionality of his life preserver, proceeded to conduct hearings to collect information.¹⁹ One of the witnesses called in by the committee was Henry Mallison, the inventor's brother, who testified that he had tested the cork-jacket in rough sea and heavy surf at the East Sussex locales of Winchelsea and Pevensey.²⁰ The report released by the committee in June 1811 conveyed an approving endorsement of "The Seaman's Friend" and concluded that "the invention of Mr Mallison is well deserving of public attention."²¹

With this encouragement, Mallison continued to lobby Parliament for support for his society.²² Progress seemed to be made when in the House of Commons sitting of 28 June 1815 Sir Francis Burdett presented the motion:

That a Committee be appointed to inquire into the expediency of carrying into execution Mr Mallison's plan of an institution for saving the lives of shipwrecked men, and men exposed to danger from boats upsetting.

A vote was taken with the result that 27 voted for the motion and 92 against it²³ – an immensely disappointing defeat considering the positive reception from the parliamentary committee of 1811.

The parliamentarians who supported Mallison's proposals for the preservation of mariners shared his humanitarian vision. They did not give up – in London on 6 July 1819 Sir Francis Burdett again stood in the House of Commons and put forward the motion that the recommendations of the parliamentary committee which sat in June 1811 should be "carried into effect." The motion was seconded by William Smith who gave emphasis to the value of lifejackets for the customs men and coastguards "employed in the prevention of smuggling." After some discussion, the Speaker invited supporters of the motion to say *aye* and then opponents to say *no*. Mallison's hopes were dashed once again when the Speaker judged the no vote to prevail.²⁴

Mallison persevered with advocating for the safety of officers and men "employed in the dangerous service of pursuing smugglers."²⁵ In the 18th and 19th centuries punitive taxation laws in Britain fuelled a vast industry of illegal trade around the coast of England. Christchurch, visited by Mallison in 1807 (as noted above), was one centre

where smugglers actively plied their trade in contraband goods.²⁶ The smugglers were bold and crafty to make policing their activities a hazardous business. From newspaper reports for the period 1817 to 1820 Mallison compiled the statistics that, in the service of Preventive Smuggling Duty, 13 officers and 90 men had “unnecessarily and prematurely perished.”²⁷ Mallison maintained that lives would be saved by equipping the preventive forces with lifejackets.

It was recognized that a drawback for general acceptance of the Seaman’s Friend was that one size did not fit all. Mallison, determined to solve this limitation, carried out trials of a “general-sized” lifejacket. He reported the results in a letter, dated 19 August 1817, addressed to Prince Frederick, Duke of York and Albany, who was the Commander-in-Chief during the Napoleonic Wars and the second son of King George III.²⁸ In the letter Mallison explained that the “general-sized” lifejacket was designed to “suit all classes of men, in order to prevent confusion, in the selection of particular ones, in a hurry, or a dark night;” this versatile lifejacket was tested by three men of different height.

By the early 1820s it appears that Mallison was now slowing down. In the 1818 *Post Office London Directory* Mallison, given the unique description of “Inventor of the Seaman’s Friend,” was still running his business from 6 St Michael’s Alley, Cornhill. However, in the directories for 1819 and 1820 he had relocated to 4 Birchin Lane, west of St Michael’s Alley and running south of Cornhill. After 1820 a business listing for Mallison was not entered in the *Post Office London Directory*.

William Henry Mallison, aged 50, was buried on 2 February 1823 at St John’s Church, Church Row, Hampstead (St John-at-Hampstead) in north London. This was the church where he was baptised and where both his mother and father were buried.²⁹

Inventors of the Cork Lifejacket

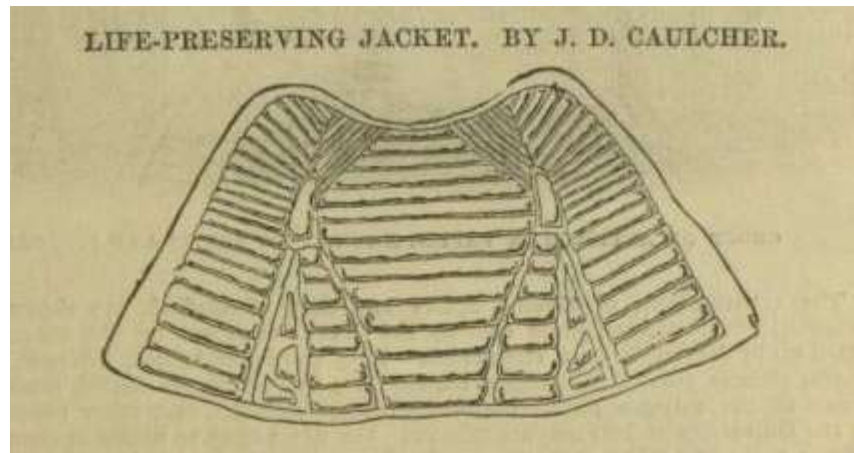


Figure 19: John Dennis Caulcher's design for a cork lifejacket.

Illustration in *The Illustrated London News*, 11 October 1851.

Image from the online archive in the Gale Primary Sources collection.

A patent registered for the design (National Archives: BT 45/14/2693) gave the description:

The novelty of this design consists in the internal configuration or arrangement of the parts which form the Life Preserver. Instead of attaching to the garment large pieces of cork or other buoyant material as is usually the case, which form a stiff and rigid casing, and render the garment exceedingly inconvenient to wear, the buoyant material (which consists of cork fibre or cuttings) is in this instance arranged in a number of small cells jointed together. . . . As the cells are jointed together the motions of the wearer will not in any manner be impeded, the entire garment being flexible in every part.

An inventive feature of the design is that, for use as a life preserver, the jacket was worn by folding up the lower part to give a padded belt as shown in the bottom diagram above. To secure this set up, the patent description explained that it was "fastened in front by a hook and eye or other contrivance, and thus a superior amount of buoyancy will be given to the upper part of the person when immersed in the water." A cord pulled up the back part of the jacket and was firmly tied in front as demonstrated in the bottom diagram.

3. The Next Generation

The Victorian era fostered interest in developing the next generation cork lifejacket. The inventors working in the early years of Queen Victoria's rule, which began in 1837, were born in the reign of King George III.

On 15 February 1851, John Dennis Caulcher (1816–1886) of London registered a patent for the design of a cork-jacket for use as a life preserver (Figure 19).³⁰ A review titled "Life-Preserving Jacket, by J.D. Caulcher," published in *The Illustrated London News*, 11 October 1851, described its merits:

The ribs are of cork; and it is so fashioned as to be capable of being worn unobserved under a coat or mantle; and, in consequence of its pliability, can be used without inconvenience whilst rowing a boat. When not required, it can be folded up and stowed away in a small space.

The patent description affirmed that "this garment is equally applicable to ladies as to gentlemen."

From 1853 to 1856, the annual *Post Office London: Commercial Directories* had the entry: John Dennis Caulcher, tailor & outfitter, 2 St Peter's Alley, Cornhill. St Peter's Alley, running south from Cornhill, was just east of St Michael's Alley where the cork-jacket entrepreneur William Henry Mallison had based his business in the early nineteenth century.

John Dennis Caulcher was born John Dennis Corker in 1816 at Haverfordwest, Pembrokeshire, Wales. When he and his younger brother James relocated to London to work as tailors, they changed their surname to Caulcher for reasons unknown.³¹ Their father Dennis Corker, born in Ireland, served in the 23rd Regiment of Foot, Royal Welch Fusileers (Fusiliers), during the Napoleonic Wars. In campaigns in the Iberian Peninsula he was wounded at the battles of Corunna (January 1809) and Albuera (May 1811); he was in the army when his regiment fought at the Battle of Waterloo (June 1815).³²

Unfortunately, John Dennis Caulcher was dispatched to debtors' prison, which likely ended his short-lived career as a cork-jacket inventor. His hearing for release from prison was held at the Court House in Portugal Street, Lincoln's Inn Fields on 17 September 1856.³³ He found a rewarding vocation: in July 1860 he joined the 1st Middlesex Artillery Volunteer Corps as Second Lieutenant and was promoted First Lieutenant in October 1862, and Captain in June 1871.³⁴

Inventors of the Cork Lifejacket



Figure 20: A member of the Whitby lifeboat crew.

Photograph by Frank Meadow Sutcliffe (1853–1941).

Whitby Museum, North Yorkshire.

Reproduced for research purposes.

Henry Freeman of the Whitby lifeboat crew wearing the life belt designed by Captain (afterwards Admiral) John Ross Ward. Freeman was the sole survivor of the Whitby lifeboat disaster of February 1861. His survival was attributed to the new type of lifejacket he was wearing. The twelve other members of the crew, who drowned close to Whitby West Pier, were not wearing lifejackets, which likely would have saved them (Brooks, *Designed for Life*, p. 9; Henry Freeman online biography, Whitby Museum; and “Whitby lifeboat disaster” online article, Royal National Lifeboat Institution).

Inventors of the Cork Lifejacket

A contemporary of Caulcher, Captain (afterwards Admiral) John Ross Ward (1813–1890), is recognized for his initiatives which heralded a modern era of safety standards.³⁵ The lifejacket historian Christopher Brooks wrote:

In 1854, Capt Ward took the most significant step and introduced the first 800 cork lifejackets to the Royal Lifeboat Institution in Britain. This style was copied and introduced into Navies, Merchant Navies, passenger ships and fishing vessels worldwide. This style of life jacket was to see service until well after the Second World War.³⁶

It is assumed that there is no family connection to the John Ward of the eighteenth century – but it is an interesting coincidence that two John Wards from different eras had a role in actively promoting the cork lifejacket. John Ross Ward registered a patent for a life belt on 21 April 1865,³⁷ exactly one hundred years after John Wilkinson filed his patent.

Captain Ward's life preserver was made with a large number of small pieces of cork sewn on a canvas belt, designed to support both a lifeboatman and the person he was rescuing (Figure 20).³⁸ Brooks, quoted above, remarked: "This new life belt proved its worth in 1857 when the whole crew of the Scarborough Lifeboat were thrown from its bow when removing crewmen from a wrecked vessel; all were able to climb back into the lifeboat with no loss of life."³⁹

This history has now reached the advances of the Victorian era; this ends the saga of the inventors of the cork lifejacket from the Georgian era.

Notes

Online Sources – Digital Archives

The British Newspaper Archive, British Library in partnership with FindMyPast.

London Directories, London Metropolitan Archives and Guildhall Library in partnership with Ancestry.

London Gazette, The Gazette website.

Prerogative Court of Canterbury (PCC) Wills, National Archives, London.

Gale Primary Sources collection of online databases:

British Library Newspapers.

17th & 18th Century Burney Newspapers Collection, British Library.

Eighteenth Century Collections Online (ECCO).

The Times Digital Archive.

The Illustrated London News Historical Archive.

Further Reading

A well-researched survey of the history and development of lifejackets and flotation aids, with an excellent collection of illustrations and diagrams, is:

Christopher J. Brooks, *Designed for Life: Lifejackets Through the Ages*,
Richmond, BC, Canada: Mustang Engineered Technical Apparel Corp, 1995.

Preface

- 1 Captain O. A. Barrand and G. A. Green, "Life-Saving Appliances on Merchant Ships," *Journal of the Royal Society of Arts*, Vol. 80, No. 4165, 16 September 1932, p. 997 (JSTOR digital library).
- 2 A photograph of Mallison's lifejacket is in Barrand and Green, "Life-Saving Appliances on Merchant Ships," p. 998; but the source of the photograph is not given.
- 3 William Ellis-Rees, "The Man Who Stole a Knighthood: The Story of Francis Columbine Daniel" (London Overlooked online, 27 January 2019). The lifejacket invented by "Mr F. Daniel of Wapping" is mentioned in Barrand and Green, "Life-Saving Appliances on Merchant Ships," p. 996.

Inventors of the Cork Lifejacket

- In 1794 the Sun Fire Office issued a fire insurance policy to Francis Columbine Daniel, an apothecary at 102 Wapping. In a fire insurance record for 1809 Daniel was now listed as a “manufacturer of machines called life preservers” at Grove Cottage Stepney Green (London Metropolitan Archives online catalogue). The will of Francis Columbine Daniel of Leyton, Essex, was probated in 1823 (PCC Will, National Archives).
- 4 Transcribed in Giles B. Cooke, “Bark of the Exotic Quercus Suber,” *The Scientific Monthly*, March 1951, p. 169 (JSTOR digital library). The use of a cork float to swim across the River Tiber is also described in “Battle of the Allia” (Wikipedia). Further reading is the biography of “Marcus Furius Camillus” (Wikipedia).
 - 5 Josho Brouwers, “Crossing the river: An example of Assyrian ingenuity” (Ancient World Magazine online, 6 March 2018); and Christopher J. Brooks, *Designed for Life: Lifejackets Through the Ages*, 1995, pp. 5 and 6 (illustration).
 - 6 Brooks, *Designed for Life*, p. 169.
 - 7 *London’s Summer Morning* in the online anthology of the Poetry Foundation. Further reading is the biography of Mary Robinson, ca.1757–1800 (Wikipedia); and Martin J. Levy, “Mary (Perdita) Robinson (née Darby),” *Oxford Dictionary of National Biography*, 2008 (Oxford DNB).
 - 8 An informative review of the cork-cutter profession is Cheryl Bailey, “Bark’s Requiem: the forgotten trade of corkcutting,” *Family History Monthly*, January 2004, pp. 22–24.
 - 9 *The Book of Trades, or Library of the Useful Arts*, Vol. 1, 1804, London, pp. 144–148. As further reading, a review with an illustration of a man wearing a cork lifejacket (p. 651) is Arthur Good and William Anderson, “Cork, its manufacture and properties,” *The Popular Science Monthly*, New York, Vol. 31, 1887, pp. 635–653 (Internet Archive).
 - 10 Henry Coe, cork-cutter, 1 Crooked Lane, Cannon Street, was listed in the *Post Office London Directory* from 1811 to 1814, and Robson’s *London Directory* for 1819 (London directories, Ancestry online).

PART ONE: Eighteenth Century

- 1 Seth Houghton, “Loss of the Ann Frigate,” 1760, in *Shipwrecks and Disasters at Sea*, Vol. 2, Edinburgh, 1812, pp. 441–2 (Google eBook). The maritime disaster was reported in *Read’s Weekly Journal, or, British Gazetteer*, London, 22 November 1760 (17th & 18th Century Burney Newspapers Collection).
- 2 John Wilkinson, *Tutamen Nauticum: or, The Seaman’s Preservation from Shipwreck, Diseases, and other Calamities incident to Mariners*, second edition 1764, Introduction: p. ii (Google eBook).
- 3 Eighteenth Century Collections Online (ECCO). A review of Wilkinson’s book was given in *The Monthly Review*, Vol. 20, 1759, pp. 605–7 (Google eBook).
- 4 FAS was often used to stand for Fellow of the Antiquarian Society in early records until FSA (Fellow of the Society of Antiquaries) became the established post-nominal (email correspondence 18 August 2021 from Frank Waterton, The Library, Society of Antiquaries of London). At the time of his death Wilkinson used the post-nominal letters FSA. The card catalogue for Historic Fellows has a record that Wilkinson was elected to the Society of

Inventors of the Cork Lifejacket

- Antiquaries on 19 March 1795 (email correspondence 18 August 2021 from Frank Waterton). This is somewhat puzzling as he appears to have called himself a fellow of the society as early as 1759.
- Members of the Society of Arts have never used the post-nominal FAS; the post-nominal FRSA (Fellow of the Royal Society of Arts) was introduced in 1914 (email correspondence 28 February 2022 from Eve Watson, Head of Archive, Royal Society of Arts, London).
- 5 The birth year of John Wilkinson was imputed from his age reported at death. In his will, he mentioned that his father and mother were buried in the vault at the parish church of Leigh, Lancashire (PCC Will probated 1818, National Archives).
 - 6 In a codicil to his will, John Wilkinson expressed the interest to donate some Roman antiquities to the British Museum (PCC Will probated 1818, National Archives). It is not known whether the British Museum received this gift.
 - 7 Letter dated 10 March 1759 reproduced in John Wilkinson, *Tutamen Nauticum*, second edition 1764, Introduction: p. iii (Google eBook). Biography of Laurence Sulivan is at the History of Parliament online; and the *Oxford Dictionary of National Biography*.
 - 8 email correspondence 28 February 2022 from Eve Watson, Head of Archive, Royal Society of Arts, London.
 - 9 The British Library online catalogue.
 - 10 His certificate of election to the Royal Society recorded that John Wilkinson MD resided in London at Gloucester Court, St James's Street (online database of past Fellows, the Royal Society Collections Catalogues), to confirm that he was the same John Wilkinson in the membership records of the Society of Arts.
 - 11 From the description on the trade card, it is assumed that the shop sign was painted. A scene of Georgian London, depicted in William Hogarth's *Beer Street*, 1751, shows a sign painter at work.
 - 12 *Specification of John Wilkinson: floating baths and cork jackets or floats*, 1765, published by the Great Seal Patent Office, London, 1856 (Wellcome Collection online).
 - 13 In his will, probated 28 November 1767 (National Archives), William Peter Knolton, cork-cutter of Mark Lane, London, named his son Christian David Knolton.
 - 14 *Gazetteer and New Daily Advertiser*, 9 July 1766 and 29 June 1767; *London Gazette*, 1 May 1773; and *Public Advertiser*, 31 May 1773.
 - 15 Records of the Jerusalem Coffee House, London Metropolitan Archives online catalogue, reference code: CLC/B/021-3.
 - 16 George Blair, *Biographic and Descriptive Sketches of Glasgow Necropolis*, Glasgow, 1857, p. 164 (Google eBook).
 - 17 In the 1770s, Kent's *London Directory* gave a listing for "John Ward, merchant, No. 21 Borough" (London Directories, London Metropolitan Archives and Guildhall Library, Ancestry online).
 - 18 London parish registers, London Metropolitan Archives, Ancestry online.

Inventors of the Cork Lifejacket

- 19 John Ward, will dated 8 December 1778, PCC Will probated 18 December 1778, National Archives.
- 20 A notice in the Foreign Affairs section of *The London Magazine: or, Gentleman's Monthly Intelligencer*, 1750 (Google eBook).
- 21 Noël T. Methley, *The Life-Boat and Its Story*, London, 1912, p. 164 (Internet Archive, also Google eBook preview).
- 22 The date of 1768 for the invention is given in N.G. Dufief, *A New Universal and Pronouncing Dictionary of the French and English Languages*, 1810, p. 737 (Google eBook). More description is "Jean-Baptiste de la Chapelle" (Wikipedia).
- 23 Biographical records of past Fellows, the Royal Society Collections Catalogues online.
- 24 *Whitehall Evening Post*, London, 9 March 1780.
- 25 J.K. Laughton, revised by Barry M. Gough, "George Farmer (1732–1779), naval officer," *Oxford Dictionary of National Biography*, 2004. An engraving of the "Quebec in flames, survivors in ships' boats and clinging to wreckage" is in the collections of the British Museum, museum number 1877,0609.2061.
- 26 R. Macpherson, *A dissertation on the preservative from drowning; and swimmer's assistant*, London, 1783, p. 20 (Wellcome Collection online; also Google eBook, digitised from the original in Oxford University).
- 27 Letter from R. Macpherson of Bush Lane [City of London], "about exhibition of preservative from drowning," dated 25 November 1783, delivered to Samuel Moore, secretary of the Society of Arts (Royal Society of Arts, archive online catalogue, reference code RSA/PR/MC/101/10/1515; digital images received February 2022 from Eve Watson, Head of Archive, RSA). The second page of the document gave the description: "Mr McPherson on his Preservative read at Society Nov 26, 1783."
- 28 Letter to the publisher of the *English Review* submitted by R. Macpherson of Bush Lane, 17 November 1783, printed in *The English Review, or, An Abstract of English and Foreign Literature*, Volume 2, London, 1783, pp. 394–396 (Google eBook). This was a response to a review of his book that was printed in the same publication, pp. 289–290. Further reading is "The Marine Society" (Wikipedia); and "The Marine Society" (London Lives website which hosts the Marine Society Database).
- 29 John Wilkinson, *Tutamen Nauticum*, second edition 1764, Introduction: pp. 13–14; and Macpherson, *A dissertation on the preservative from drowning*, pp. 11 (the footnote gives a reference to Wilkinson's book), 30–31. References to the Navy's objections to the adoption of Macpherson's life preserver are in Ralph Thomas, *Swimming: with lists of books published in English, German, French, and other European languages, and critical remarks on the theory and practice of swimming and resuscitation*, London, 1904, pp. 147, 211 (Internet Archive).
- 30 Macpherson, *A dissertation on the preservative from drowning*, p. 30.
- 31 The name of the cork-jacket distributor was not disclosed in Macpherson's book. However, newspaper advertisements for Bell's cork-jackets match the description of Macpherson's designs.

Inventors of the Cork Lifejacket

- 32 Information sheet: *By authority, new-invented Cork Jacket, for prevention of drowning*, printed in London about 1790 (Eighteenth Century Collections Online (ECCO), digitised from the original at the Bodleian Library, University of Oxford). An online description is at the Wellcome Collection.
- 33 *Morning Herald*, London, 16 July 1785; 10 July 1786; and 2 July 1793.
- 34 Death notice in *St James's Chronicle*, London, 22 August 1818.
- 35 John Wilkinson, PCC Will probated 1818, National Archives.
- 36 Lancashire Record Office parish register images at FamilySearch.
- 37 Notice in the *Morning Chronicle*, London, 27 October 1819. The post-nominal letters "FRS and SA" recognize that Wilkinson was Fellow of the Royal Society and Society of Antiquaries of London.
- 38 Report titled "Balloon Intelligence" in *Gazetteer and New Daily Advertiser*, London, 11 January 1785.
- 39 A news report was printed in the *Gazetteer and New Daily Advertiser*, London, 11 January 1785. References are: L.T.C. Rolt, *The Balloonists: the History of the First Aeronauts*, 2006, (pp. 85–87), first published with the title *The Aeronauts*, 1966; Huw Rowlands, "Blanchard! Where are your trousers? The first crossing of the English Channel in a balloon" (Untold lives blog, British Library, 7 January 2019); and Gregory P. Kennedy, "America's First Flight" (StratoCat online). John Jeffries published an account of his historic flight in the book *A Narrative of the Two Aerial Voyages of Doctor Jeffries with Mons. Blanchard*, London, 1786 (Google eBook), where he mentions the cork-jacket on pages 42, 45, and 47.
- 40 Vincent Lunardi, *An Account of Five Aerial Voyages in Scotland*, London, 1786, p. 31 (Google eBook).
- 41 *List of Fellows of the Royal College of Surgeons of Edinburgh*, Edinburgh, 1874 (Internet Archive). A biography of James Rae, in the *Oxford Dictionary of National Biography*, states that his son William Rae settled in London, where he married Isabella Dallas.
- 42 Vincent Lunardi, *An Account of Five Aerial Voyages in Scotland*, p. 34.
- 43 Photograph of the Lunardi plaque in Scotland (Wikimedia Commons) with the lines:
Vincenzo Lunardi: born in Lucca, Italy, in 1759, he ascended in a hydrogen balloon on 5th October 1785 from the garden of Heriot's Hospital, Edinburgh, he landed at Coaltown of Callange in the Parish of Ceres, having travelled 46 miles. This was the first aerial voyage in Scotland.

PART TWO: Nineteenth Century

- 1 William Henry Mallison, *The Seaman's Friend*, London, 1804 (Google eBook, digitised from the original in The British Library).
- 2 Mallison, *The Seaman's Friend*, 1804, pp. 38–40.
- 3 Mallison, *The Seaman's Friend*, 1804, pp. 59–60.

Inventors of the Cork Lifejacket

- 4 "Mallison's Seaman's Friend," *The Sporting Magazine*, London, Vol. 25, December 1804, pp. 129–131 (Internet Archive, and Google eBook).
- 5 William Henry Mallison, *Plan of an attempt for rendering assistance to shipwrecked mariners, preserving their lives, and the property of our merchants, when wreck occurs*, London, ca.1808, pp. 12–13 (Wellcome Collection, and Internet Archive, digitised from the original in the Royal College of Physicians, London).
- 6 Mallison, *Plan*, ca.1808, pp. 17–18.
- 7 Payments were listed in the financial accounts published in William Henry Mallison, *Plan of an Institution, for rendering assistance to shipwrecked mariners, preserving their lives, and the property of our merchants, when wreck occurs*, London, 1810, p. 11 (Google eBook, digitised from the original in The British Library).
- 8 Expenses for the cork-jacket experiments and the age of Blazdell are given in Mallison, *Plan of an Institution*, 1810, pp. 17 and 36. John Blazdell (also spelled Blasdale) gave witness testimony describing his role in testing Mallison's life preserver to a committee appointed by Parliament (*Report from the Committee on the Petition of William Henry Mallison*, published in Parliament of Great Britain, House of Commons, *Reports from Committees*, Volume 2, 1811, pp. 7–8, Google eBook).
- 9 Mallison, *Plan of an Institution*, 1810, pp. 31–32.
- 10 Mallison, *Plan*, ca.1808, p. 8.
- 11 Mallison, *Plan*, ca.1808, p. 31.
- 12 Mallison, *Plan*, ca.1808, p. 32.
- 13 Mallison, *Plan of an Institution*, 1810, p. 29.
- 14 The list of subscribers is given in Mallison, *Plan of an Institution*, 1810, pp. 8–10.
- 15 The subscriber "James Brandon, Covent Garden Theatre" is named in Mallison, *Plan*, ca.1808, p. 26. A biographical note for James William Brandon (1754–1825) is in Philip H. Highfill et al., *A Biographical Dictionary of Actors, Actresses, Musicians, Dancers, Managers and Other Stage Personnel in London*, 1973, pp. 306–308 (Google eBook preview). This source gives family information about his wife, Lucinda Mallison, and daughters.
- 16 Details of Mallison's Christchurch trip including expenses are in Mallison, *Plan of an Institution*, 1810, pp. 12, 19, 20. Further reading is the biography of George Rose, *The History of Parliament: the House of Commons 1790–1820* (online version).
- 17 Brooks, *Designed for Life*, p. 8.
- 18 Mallison, *Plan*, ca.1808, p. 30.
- 19 *Hansard* (a record of Parliamentary debates in Britain), 22 May 1811, reported in the *Morning Chronicle*, London, 23 May 1811 (British Library Newspapers).
- 20 *Report from the Committee on the Petition of William Henry Mallison*, published in Parliament of Great Britain, House of Commons, *Reports from Committees*, Volume 2, 1811, p. 7 (Google eBook).

Inventors of the Cork Lifejacket

- 21 "Report Respecting Mr Mallison's Life Preserver," *Hansard*, Commons Sitting of 5 June 1811.
- 22 "Petition of Mr Mallison," *Hansard*, Commons Sitting of 13 May 1814.
- 23 "Motion Respecting Mr Mallison's Invention," *Hansard*, Commons Sitting of 28 June 1815.
- 24 A report in *The Times*, London, 7 July 1819.
- 25 News report in the *Sun*, London, 13 June 1821.
- 26 Richard Platt, *The Ordnance Survey Guide to Smugglers' Britain*, 1991, pp. 11, 79 (an online version of the book is at www.smuggling.co.uk).
- 27 News report in the *Sun*, London, 13 June 1821.
- 28 *Accounts and Papers of the House of Commons*, Volume 13, printed 1818 (Google eBook, digitised from the original in Oxford University). This document has a 24-page section with extensive correspondence between Mallison and the Master-General of the Ordnance, the Board of the Ordnance, and the Board of Admiralty.
- 29 London parish registers, London Metropolitan Archives, Ancestry online. William Henry Mallison's father, Isaac Mallison, was buried on 29 August 1789 at St John-at-Hampstead, his wife Mary having predeceased him one year earlier. Isaac Mallison named Henry Barker of Gray's Inn (one of London's Inns of Court) as an executor of his will (PCC Will probated 1790, National Archives). Later, Henry Barker of Gray's Inn became a financial backer of William Henry Mallison's lifejacket business (Mallison, *Plan*, ca.1808, p. 9). This provides a connection that the lifejacket inventor was the same William Henry Mallison who was the son of Isaac Mallison.
- 30 National Archives catalogue reference: BT 45/14/2693.
- 31 Family history traced in parish registers and census returns from online databases hosted by Ancestry.
- 32 Regimental Registers of Service hosted by Ancestry.
- 33 Notice of hearings of prisoners, for the relief of insolvent debtors published in the *London Gazette*, 2 September 1856.
- 34 Notices in the *London Gazette*.
- 35 The life and distinguished career of Admiral John Ross Ward was outlined in a tribute to him printed in *The Life-Boat Journal of the Royal National Lifeboat Institution*, 1 August 1890 (Lifeboat Magazine Archive online).
- 36 Brooks, *Designed for Life*, p. 169.
- 37 National Archives catalogue reference: BT 45/24/4708, patent registered by Captain John Ross Ward R N, Inspector of Lifeboats; subject: life belt.
- 38 Captain O. A. Barrand and G. A. Green, "Life-Saving Appliances on Merchant Ships," *Journal of the Royal Society of Arts*, Vol. 80, No. 4165, 16 September 1932, p. 997 (JSTOR digital library).
- 39 Brooks, *Designed for Life*, p. 9.