The invention of the Manby Mortar by British inventor, George William Manby (1765–1854)

Oil painting of Captain George William Manby, 1808

The Manby mortar or Manby apparatus was a maritime lifesaving device originated at the start of the 19th-Century, comprising a mortar capable of throwing a line to a foundering ship within reach of shore, such that heavier hawsers could then be pulled into place and used either to direct a rescue-boat to the ship, or, later, to mount a Breeches buoy.

The apparatus was invented by Captain George William Manby, inspired by his witnessing a ship HMS Snipe (1801) run aground off Great Yarmouth in 1807.

The first recorded rescue using the Manby apparatus was on 18 February 1808, with Manby himself in charge. The crew of seven were brought to safety from the Plymouth Brig Elizabeth, stranded off the shore at Great Yarmouth. It was estimated that by the time of Manby's death nearly 1 000 persons had been rescued from stranded ships by means of his apparatus.

The crew of a brig was rescued at Yarmouth by the use of Manby's device fired from a carriage gun and supervised by Manby.

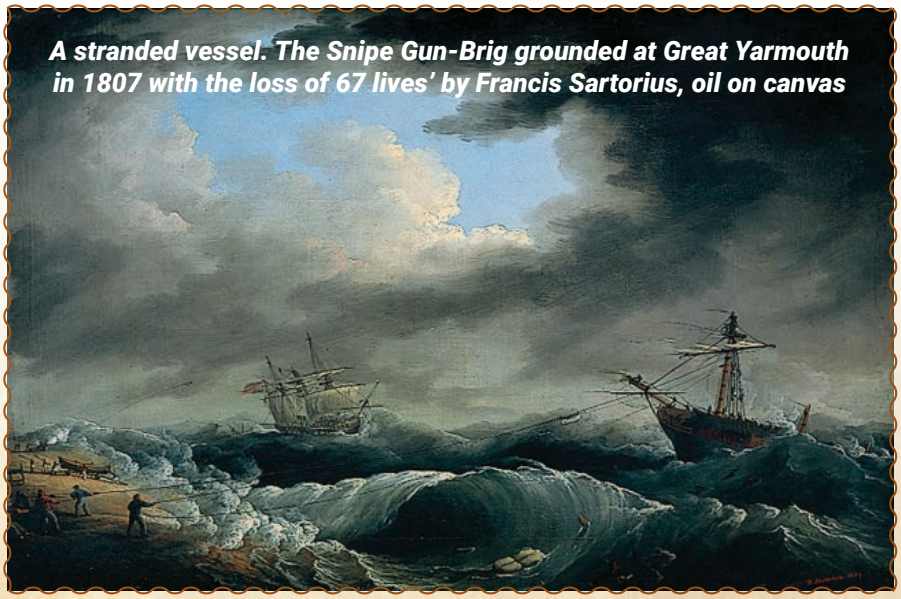
Captain G Manby's invention of throwing a rope to a ship stranded on a lee shore, for the purpose of saving the crew, proved the certainty of its never-failing success on the Elizabeth of Plymouth that was wrecked on the beach at Yarmouth in the tremendous gale of the 12th instant; the master, who is part owner, making so grateful an affidavit before the Mayor of that place, he expressed a desire to see the experiment tried in the presence of Vice Admiral Douglas, several officers of the Navy, the merchants and many persons from different parts of the coast; the wind was blowing very fresh on shore and the spot chosen 130 yards from a stranded brig, with all her emblems of distress flying. A galloper carriage, drawn by one horse, brought, with considerable expedition, every requisite for the service; a 5 1/2 inch royal mortar being dismounted, a 1 1/4 inch rope (having a 24 pounder shot appended to it) was staked in its front; about two feet from the shot the rope passed through a collar of leather, effectually preventing its burning; being projected by one pound of powder, more than 100 yards over the vessel, part of the rope fell upon the rigging.

The persons on board returning a rope by the one sent, hauled off a

stout rope, with a smaller one rove through a tailed block; the larger being made fast to the foot of the main top mast, the other end to a long, gun tackle, secured to three iron-shod stakes, driven triangularly in the ground ; the tackle being bowsed, kept the rope sufficiently tight and by persons easing off the fall, as the ship rolled, prevented danger to the rope or to what it was lashed being carried away; the tailed block was made fast under the large rope and each end of the small rope to the extremities of a hammock, extended by a stretcher of wood, (fitted up like the pole of a tent, for the convenience of a carriage), having gudgeons with forelock pins, through which was rove the great rope. By the assistance of one person from the shore, the hammock travelled to and fro, bringing all the people who were assembled in the main top, one by one, in perfect ease and safety; a service that can always be performed, when it is impossible for any boat to give the least assistance and be done when persons are initiated in the several uses, in a quarter an hour.

Every person present testified their highest approbation and several gave certificates that had a similar system and apparatus been placed at Lowestoft, Yarmouth, Winterton and Happisbro', on 18 February 1807,on which distressing day the idea first suggested itself to the inventor, more than 100 persons would have been saved. It is most earnestly to be hoped it will be generally adopted, being a circumstance of such magnitude to the country and deeply interesting to the world at large.

The Manby mortar; bronze model, inscribed 'GW Manby Capt FRS Inventor'



A stranded vessel. The Snipe Gun-Brig grounded at Great Yarmouth in 1807 with the loss of 67 lives' by Francis Sartorius, oil on canvas

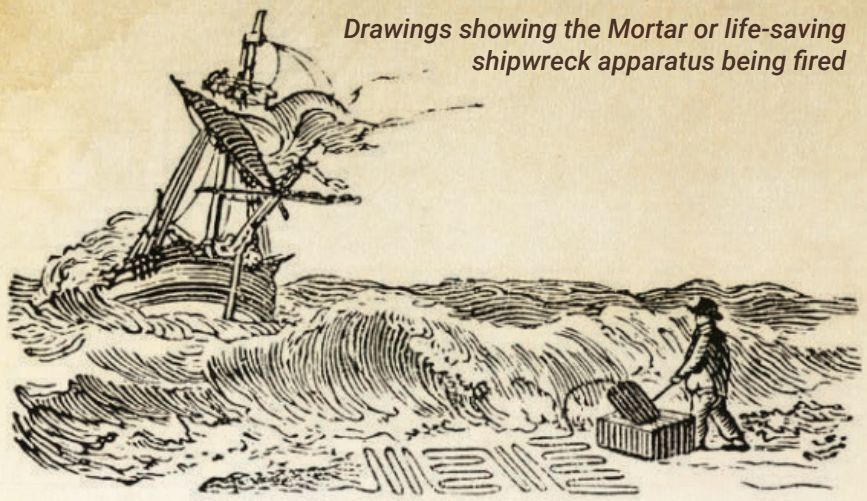
Manby was one of those to receive an honorary award at the Annual Festival of the Royal Humane Society in the May following the rescue.

In June 1808, Manby received a gold medal from The Society for the Encouragement of Arts, Manufactures and Commerce, via the hands of Henry Howard, 13th Duke of Norfolk, for forming a communication with ships by means of a rope thrown over the vessel from a mortar gun on the shore.

It was used by the Sea Fencibles by 1809, Waterguard and later by H M Coastguard for many years.

Earlier attempts

There had been earlier unsuccessful attempts at similar ideas, including by the French agronomist and inventor Jacques Joseph Ducarne de Blangy and a ship to shore idea by Sergeant John Bell, in 1792 the Society for the Encouragement of Arts, Manufactures and Commerce gave him a bounty of fifty guineas, he was at that time a sergeant,



Drawings showing the Mortar or life-saving shipwreck apparatus being fired

afterwards a lieutenant in the Royal Artillery. In 1807 the same society furnished some further particulars, with a plate of the apparatus.

The Manby apparatus was also prefigured by proposals, unfulfilled, made by George Miller as early as 1793 to the Society for the Encouragement of Arts, Manufactures and Commerce for the purchase of a mortar and line to rescue people from vessels wrecked on the Dunbar shoreline. Miller was instrumental in the purchase of a lifeboat for Dunbar, amongst the earliest (though not the first) in Britain.

Development

Early problems were with the chain snapping or line being burnt through by the ignition of the charge. Later Manby credits Captain Harris RN of the Colonial Ropery at Great Grimsby (opened in 1835) with supplying rope more suitable for this use, due to its lightness, pliancy, strength and durability, at the Lincolnshire Shipwreck Association trials of the mortar and Mr Dennet's rocket apparatus held at Cleethorpes in 1838.

The success of rescues depended upon both the team operating the mortar and the crew of the vessel in distress. Unfortunately, even as late as 1844 a letter published in the Shipping and Mercantile Gazette described the loss of life of the York Union at Winterton and the Sarah of Goole driven ashore at Corton, due, it is thought, to their crews not knowing their role in operating the equipment.

In the United States the limited range of the Manby mortar was overcome in the second half of the 19th Century by the development of the Lyle gun.

As early as 1842 the crew of Huzza from the port of Wisbech were rescued off Hartlepool by the use of a rocket. Eventually the Manby mortar was replaced by rockets. In 1967 a documentary on the inventor was made. Locations included Denver, Downham Market and Great Yarmouth. Scenes include the use of the mortar, rocket and breeches buoy. The recording is now available on the East Anglian Film Archive website.

Captain George William Manby FRS (28 November 1765 – 18 November 1854) was an English author and inventor. Apart from the Manby Mortar, he also designed the first modern form of fire extinguisher.

Other awards

In August 1808, Manby received a medallion from the Suffolk Humane Society.

In 1838 he met Marshal Soult as part of his campaign to involve France and other nations in achieving a worldwide policy for the treatment of shipwrecked mariners and their cargos.

Manby received a belated Queen Victoria Gold Coronation Medal in March 1842.

Sources: Sea History Differently, Wikipedia, Royal Collection Trust