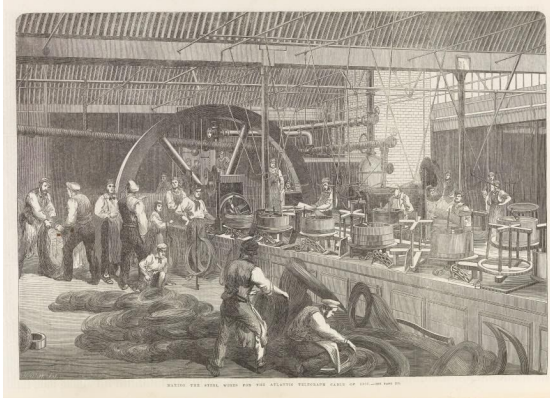


Timeline texts

Timeline Date: March 1866

Image: Making steel wire ILN Sep 15 1866



Caption: Making steel wire for the cable armouring

The 2,300 miles of cable needed for the 1866 Atlantic telegraph was constructed in layers. First a pure copper wire was passed through a machine to coat it in Gutta-percha. Gutta-percha is a natural plastic, mouldable when hot and solid yet flexible when cooled. Seven strands of this coated wire were then twisted together to form the core of the cable. The core was then wrapped in jute (hessian) and sealed with further layers of gutta-percha. The insulated core was then armoured with steel wires; heavy wires for the shore end where the cable could be damaged by the anchors of boats, lighter wires for the safer deep-sea sections. A single mistake would mean the failure of the whole cable so the cable was electrically tested in massive salt-water tanks at each stage of the process.

Timeline Date: May 1866

Image: 26 May 1865 'The Prince of Wales inspects the cable tanks of the SS Great Eastern at Sheerness'.



Caption: Cable coiled in the tanks of the SS Great Eastern

The finished cable sections were so heavy that the Atlantic Telegraph Company had to charter the largest ship of the day: the *Great Eastern* (built by Isambard Kingdom Brunel) to carry it. Two decommissioned war ships, the *Amethyst* and the *Iris*, were used to ferry the cable between the factory at East Greenwich and the *Great Eastern* anchored at Sheerness. Every move of the cable had to be carefully planned to avoid kinks and breakages. The cable was threaded onto pulleys and slowly uncoiled from the salt-water tanks in the factory. It was passed over the water and carefully coiled again into the four specially installed tanks on the *Amethyst* and *Iris*. At Sheerness the operation was

repeated. The cable was fed out of the holds of the smaller ships, up into the three great salt-water tanks on the Great Eastern and painstakingly coiled for the journey.

Timeline date: 13 July 1866

Image: Foilhommerum Bay Valencia Ireland. The William Corey heading seawards laying the shore end.



Caption: The Great Eastern begins laying the cable from Valentia Island

The Great Eastern set sail from Valentia Island in Ireland on Friday 13 July 1866. The cable was slowly uncoiled from the tanks below deck. It then passed through the cable laying machinery installed on the deck and over the stern of the ship where it sank to the sea bed. Signals were constantly sent from the land end at Valentia to the testing room on board ship where an engineer was on watch 24 hours a day. If the signals faltered the ship could be stopped, the cable hauled back on board and the fault cut out and repaired. The Great Eastern could use her propeller and paddle wheels to hold a steady position while emergency brakes and strain meters helped to protect the cable in bad weather and high seas. Unlike all previous attempts, the weather was good and the expedition passed without incident.

Timeline date: 27 July 1866

Image: Laying the shore-end at Heart's Content. Dudley, 1866.



Caption: Laying the shore-end of the cable in Newfoundland

The Great Eastern arrived in Heart's Content, Newfoundland on 27 July 1866, 14 days after it had left Ireland. Messages of congratulation were passed from England to the ship. The end of the deep-sea section of the Atlantic cable was passed from the *Great Eastern* onto a smaller ship, the *Medway* where it was carefully spliced to the heavily armoured shore-end of the cable. The next day, the *Medway* brought the cable in close to shore and sent out the ship's boat to take the final, heavy end in to land. Waist high in water - and with much cheering - sailors and locals alike grabbed the cable and hauled it up the beach to the cable shed. The engineers worked through the night and the link through to London was made in time for the morning news on 28th.

Timeline date: 1 September 1866

Image: Testing the recovered Atlantic telegraph cable of 1865



Caption: Testing the recovered 1865 cable on board the Great Eastern

Two weeks later, on the 9 August 1866, after re-coaling and taking on more cable the *Great Eastern* steamed away from Heart's Content in search of the 1865 cable, lost 600 miles from shore. She and the *Medway* joined the *Albany* and the *Terrible* at the location where the earlier cable was lost. The ships grappled the sea bed two and a half miles down for the cable for four weeks. Three times they hooked the cable only to lose it again. On the 30th attempt the end of the lost cable was brought on board and into the little electricians' room. Signals were sent down the line to Ireland and after a few tense seconds the line jumped into life bringing a reply and the wild celebrations of all on board. The splice was made and the last 600 miles of cable laid back to Newfoundland. The *Great Eastern* returned to Heart's Content having laid not one but two Atlantic cables.

Timeline Date: 8 September 1866

Image: The Central Telegraph Office Instrument Gallery, Dec 12 1874



Caption: News from around the world in the Central Telegraph Office, London

At an astounding 8 words per minute the latest news criss-crossed the Atlantic bringing bulletins about reform riots in Hyde Park, war between Prussia and Italy, Napoleon arming his fleet, stocks, shares and bank rates. It brought news of Florence Nightingale, fabric prices in Calcutta, Fenian plots and attempts to assassinate the Czar alongside tips for Goodwood and the Derby. The Atlantic Telegraph touched every part of life and brought the 'old world' of Europe into instantaneous contact with the 'new world' of the Americas.

I would like to reproduce the text from the congratulatory telegrams at the end here but I don't know whether this is possible. There are hi (ish) res scans of the handwritten transcripts available (these are not them).

THE QUEEN'S MESSAGE.

Received on board the 'Great Eastern' July 27th 1866
Commenced receiving 11.28 am.
Finished - - - 11.47 - -

"The Queen, Osborne, to the President of the United States, Washington.

The Queen congratulates the President on the successful completion of an undertaking which she hopes may serve as an additional bond of union between the United States & England."

THE PRESIDENT'S REPLY.

Received at Heart's Content Station July 31st 1866.
Received from New York 3.42 p.m.
Commenced reading 3.50 "
Finished - - - 4.1 "
Remains in London 4.11 "
Message received of its having
been delivered to the Queen at Osborne at 5.0 pm. }
}

"The Executive Mansion, Washington 11.30 am July 30. To Her Majesty, the Queen of the United Kingdom of Great Britain & Ireland. The President of the United States acknowledges with profound gratification the receipt of Her Majesty's despatch and cordially renews the hope that the cable that now unites the Eastern and the Western Hemispheres may serve to strengthen and perpetuate peace and unity between the Government of England & the Republic of the United States.
Andrew Johnson."