

The first step in the great enterprise was the connection of St. John's, Nfld., with the telegraph lines already in operation in Canada & the U.S., & Mr. Field was despatched to England to order the necessary work to be done. He entered into a contract for a cable to be laid across the Gulf of St. Lawrence from Newfoundland to Cape Breton. The first attempt to lay it in Aug., 1855, was not successful. Another contract was made, which was executed in the following year.

Then came the ocean work, & Mr. Field was authorized to go to Europe and ask the financial aid of Great Britain. He secured the services of J. Brett, Sir Chas. Bright & others, & organized another company. The lobbying necessary in Washington nearly discouraged him, for he encountered far more opposition there than in England, but the measure passed the Senate by one vote, & after a risky passage in the House received the President's signature Mar. 3, 1857. The next question which arose for consideration was how the cable was to be laid. The Great Eastern, then known as the Leviathan, alone could embrace it within her gigantic hold, but then the vast fabric had never been tried, she might prove a failure. It was determined that the responsibility should be divided & the burden entrusted to two vessels of smaller dimensions. The British Government placed at the disposal of the Co. the battle ship *Agamemnon*, & the U.S. the steam frigate *Niagara*. It was decided that the *Niagara* should land the shore end at Valentia, & pay it out till her cargo was exhausted midway; the *Agamemnon* was to take up the tail & carry it on to Newfoundland. On Aug. 5, 1857, the shore end was secured in the little cove selected for the purpose in Valentia. On the 7th the squadron sailed, & the *Niagara* commenced paying out the cable very slowly, but on the 11th the cable broke & was lost in 2,000 fathoms of water 280 miles from Valentia. This loss proved fatal to the first attempt to lay the Atlantic Cable.

Nothing daunted by the failure Mr. Field started off at once for England & urged the immediate renewal of the enterprise, but it was resolved to postpone it to the following year. All was ready for the expedition before the time indicated & the directors & the public looked with confidence to the result. Instead of landing a shore end at Valentia it was decided that the ships should proceed together to a point midway between Valentia & Newfoundland, there splice the cable & turn their bows east & west & proceed to their destination. On June 10, 1858, the *Agamemnon* & *Niagara* left Plymouth, but scarcely had they set out when a violent storm separated the vessels. The overloaded *Agamemnon*, strained & cracking in the gale, heeled over & threatened every moment to sink in the trough of the sea; she escaped & finally rode safely to the rendezvous in the midst of the ocean. The *Niagara* passed through the dreadful ordeal with less danger & difficulty. The ships met on June 25 in the midst of the Atlantic. The next morning they spliced the cable; it however became foul of the scraper on the *Niagara* & broke. A second splice was immediately made, & the vessels started, but after going a short distance the cable broke. On June 28, the third splice was effected. The *Agamemnon* had paid out 146 miles of cable, when the upper deck coil became exhausted, speed was slackened in order to shift the cable to the lower deck when suddenly it snapped. The vessels returned to Ireland for new supply of cable, & on July 29th the ships once more met in mid ocean, spliced the cable, & sailed away from each other, the *Agamemnon* for Valentia & the *Niagara* for Newfoundland. But they were never separated, the busy cable still bound them together, & at length on Aug. 7, a thrill of wonder shot through the two continents when it was told they were bound to-

gether by electric thought, & the first message that came over the cable gave glory to the Most High & promised peace on earth & good will to men. The first public message that came over the cable was from the Queen to the President of the United States, his reply & others followed, but the cable broke down on September 3.

For seven years the cable slept almost forgotten, they were years full of political convulsions & fatal disorder. The reign of peace on earth & good will to men which had been so fondly promised by the first message over the cable seemed to have faded for ever, for the United States was threatened with destruction. In the tumult of the rebellion the cable & its projectors sank into neglect, & when at length the war was ended few believed that the proposed plan would ever be renewed. The public had lost its interest in the Atlantic cable, & looked with coldness upon a project that had once aroused its highest enthusiasm. Amidst such disappointments Mr. Field & his courageous associates in 1865 had renewed their telegraph company, provided a new cable, & gallantly prepared to brave the dangers of the sea. The cable was more perfect than any former one, & its greatly increased weight & size would have made the question of stowage a very embarrassing one, had it not been for the existence of the Great Eastern, there being no two ordinary ships afloat that would be capable of containing in a form convenient for paying out the great bulk presented by 2,300 miles of cable of such dimensions. On July 15 the Great Eastern left the Nore carrying 7,000 tons of cable. On the 17th she came up with the str. *Caroline*, which had the shore end on board, & took her in tow. Next day the tow rope broke, & the *Caroline* ran for Valentia Harbor, & the Great Eastern passed inside the Skellegs, stood in close to Valentia light, & sent a boat ashore. After firing a gun to announce her arrival, she steamed for Berehaven in Bantry Bay, & anchored inside the Island on July 19. Here she lay preparing for her great errand, whilst the *Caroline* was laying the shore end of the cable in Foilhumorum Bay, in Valentia. On July 22 the bight of the cable was shipped from the *Caroline* to the Great Eastern. The next morning was exceedingly fine, & the Great Eastern proceeded at the rate of 6 knots an hour. When 84 miles of cable had been paid out, a fault occurred, & the whole staff was aroused. The engines on deck were got ready to work the picking-up apparatus at the bows. The operation of picking up proceeded all day & all night. After 10½ miles of cable had been hauled in, to the joy of all on board the fault was discovered. After a detention of some 12 hours the paying-out machinery was again put in action, & the cable glided out rapidly astern. About half a mile of cable had been paid out, when suddenly all communication between the shore & the ship ceased. The news spread from end to end of the ship, which again lay in restless quiet on the waters. Again the wearisome energy of the picking-up apparatus was to be called into play, but the index light reappeared on its path in the testing room, & the weary watchers were gladdened by the light of the beacon of hope once more. As the sea was calm & the cable ran out so beautifully, the speed of the ship was increased, & it looked as if there was really no limit to the velocity at which the process could be conducted under favorable circumstances. Every eye in the ship was watching the turning of a single wheel, every ear was listening for a single sound. The Great Eastern was now near a fatal spot. Somewhere below her lay the bones of two Atlantic cables, & as Mr. Field was watching on the tank the sound of the wheel suddenly stopped, the cable broke, & was lost in the deepest part of the ocean. The still shining Atlantic had swallowed up the expiring cable

1,062 miles from Valentia, 606 miles from Newfoundland. There around lay the placid Atlantic smiling in the sun, & not a dimple to show where lay so many hopes buried. After brief consideration it was resolved to make an attempt to recover the cable. The grapnels were brought up to the bows & secured to wire rope & thrown over, & whistled through the sea a prey to fortune. All life died out in the ship, & no noise was heard except the dull grating of the wire rope over the wheels at the bows. After 2,500 fathoms, or nearly three miles of rope had been paid out, the grapnel reached the bed of the Atlantic, & set to the task of finding & holding the cable. All through the night's darkness the grapnel groped along the bottom, as the wind drifted the Great Eastern. At 6 a.m. she swayed gradually, & turned her head towards the wind. It began to be seen that there was some agency working to alter the course of the ship. The machinery was set to work to pull up 2,500 fathoms of rope, the operation was of course exceedingly tedious. As the shackle & swivel of the eleventh length of rope, which would have made a mile on board were passing the machinery, the head of the swivel pin was wrung off by the strain, & 1,400 fathoms of line, with grapnel attached, rushed to the bottom of the Atlantic, carrying with it the bight of the cable. The Great Eastern hung about the spot 9 days, & made 3 more unsuccessful attempts to recover the cable. The wind & sea were rising, as if anxious to hurry her from the scene. She struggled against the helm for a moment, as though she yearned to pursue her course to the west, then bowed her head to the angry sea, in admission of defeat, & moved slowly to meet the rising sun. Early on the morning of Aug. 17 the Great Eastern came in sight of land, & soon steamed into Crookhaven to communicate with the telegraph station at that solitary spot. Ere noon the news of the safety of the ship relieved many an anxious thought, silenced many a tongue & pen, & dissipated many a gloomy apprehension. Her return was a subject of national rejoicing, every newspaper in the kingdom contained articles on the topic. The energy, skill & resolution displayed in the attempt to recover the cable was admitted & praised on all sides.

By this time Mr. Field's health & fortune were so impaired that his friends supposed he would abandon the project. But after a short period of recuperation he put forth a paper, in which he asserted that although the expedition had been unsuccessful in carrying the cable across the ocean, it was by no means a failure. He organized the Anglo-American Telegraph Co., with a capital of \$3,000,000, & raised the money in less than 3 months. The new cable was completed & put on board the Great Eastern in June, 1866. The shore end was successfully laid, & made fast to the cable on the steamer, & she left Valentia on July 15. For 14 days the cable was paid out over the enormous drums, & on July 27, 1866, the enormous hull of the Leviathan was discerned by watchers on the Newfoundland coast, & with guns firing & bunting floating, with a trail of wire 2,000 miles behind her, the Great Eastern steamed majestically into the harbor of Heart's Content, & dropped her anchor in front of the telegraph office, all safe, all well. A salute of 21 guns from the Great Eastern, H.M.S. *Terrible*, *Niger* & *Lilly*, with hearty cheers from the ships & people on shore, announced the complete success of the first object of the expedition, that of laying & landing the new cable of 1866.

The squadron having done its work with the cable of 1866, left Newfoundland a few days afterward, & proceeded to search for the lost cable of 1865, & on Sept. 1 it was raised by the Great Eastern, spliced to the remaining portion, & the whole landed in Newfoundland, & thus terminated, so far as cable laying & picking up were concerned, the practical work