

limits of possibilities, and it only required the energy of the indomitable Cyrus W. Field, an American from New York, to perfect the arrangement, place the continents within almost instant communication of one another, and earn the everlasting gratitude of the world. Morse, the famed electrician, had thought of this before, but Field was the practical man of business with whom to think was to act. He was a retired merchant of New York who had made a fortune in the paper-making business, and, at the early age of thirty-five, had withdrawn from business, intending to live at ease for the rest of his life and die "unwept, unhonored and unknown." His plan, however, was changed, and he was not long in idleness before his ever busy brain became interested in the new telegraphic scheme, brought to his notice by Mr. Gisborne, the indefatigable superintendent of the Canadian Telegraph. In thinking about the short service to Europe above referred to, the idea occurred to him, why not connect the continents by wire? He immediately wrote asking Lieut. Maury, of the U. S. survey, if a wire could be stretched across the ocean, and received a favorable reply in the shape of the report of Lieut. Berryman on observations and soundings taken between Ireland and Newfoundland, a distance of 1,600 miles. The bottom was found to be a plateau, stretching from shore to shore, not too deep, yet deep enough to protect a wire from all dangers from anchors and icebergs. The nature of the shells brought up by the sounding apparatus too, showed that nothing was to be feared from currents. Morse and Field became staunch friends, and the enterprising Field, now fully convinced of the feasibility of the scheme, at once formed a company to carry out the plan, and going to Newfoundland there obtained a charter from the Colonial government to work his scheme. The first thing was the building of a land line and the connection with Cape Breton and a land line to New York. Two years it took to do this, and then Mr. Field went to England to interest British capital in the enterprise, for so far the expenses were stood by Field and his associates, Cooper, Taylor, Roberts, White and Hunt.

For half a year he lived in London

consulting, influencing, persuading engineers, scientists and statesmen of the feasibility of the scheme. After having, with infinite trouble, succeeded in forming an English joint stock company with a quarter of the stock to be reserved for American capital, he repaired to Washington, there to find new fields for perseverance in the shape of warring political factions, who made the granting of the charter a new subject for debate and objections. To show by what a narrow margin the bill of incorporation finally did pass, it is only necessary to quote the speech of Mr. Seward made in 1858: "The President and Secretary of State individually favored the proposition, but the jealousies of parties and sections in Congress forbade them to lend it their official patronage. He appealed to me; I drew the necessary bill, with the generous aid of others, northern representatives, and the indispensable aid of the late Thomas J. Rusk, a Senator from Texas, that bill, after a severe contest and long delay, was carried through the Senate of the United States by the majority, if I remember rightly, of one vote and escaped defeat in the House of Representatives with equal difficulty." The bill having been signed by the President, Mr. Field started to work. The cable which had been in course of construction in England, was shipped aboard the American vessel *Niagara* and the British *Agamemnon*, and attended by an escort they started paying out the cable from the Irish shore, intending to splice the ends in mid-ocean and then continue to Newfoundland. Then started that series of mishaps, which, continuing for ten years, so sorely tried his patience and perseverance, but which terminated in the complete mastery of the elements and of circumstances. The *Niagara* had gone but five miles from the Irish coast when the wire parted. It put back, the wire was "under-run" and the next day a new start was made. They safely passed the dividing line between the continent and the deep sea, where a dip of twelve hundred fathoms took place, and were beginning to breathe easily, and were about two hundred miles off the Irish coast when the current from the shore, which hitherto had been constant, suddenly ceased. Professors Morse