

THE ATLANTIC CABLE.

The general enthusiasm of the people of this country and, we doubt, not of Great Britain also, which has been developed by the success attending the labors of the great enterprise, renders every piece of intelligence, no matter how meager, acceptable and of interest, and therefore we surrender a great amount of space to the all-absorbing topic. The daily and other newspapers have literally been crowded with Atlantic Cable news, and it is our intention to give our readers, as far as possible, the pith of these lengthy accounts and statements.

During the whole voyage Mr. Field kept a diary, which he has kindly laid open for the use of the press, and from it we shall make some extracts:—

Saturday, July 17.—This morning the telegraph fleet sailed from Queenstown, Ireland, as follows: The Valorous and Gorgon at 11 A. M., the Niagara at 7 30 P. M., and the Agamemnon a few hours later. All the steamers are to use coal as little as possible in getting to the rendezvous. Up to 5 P. M. clear weather and blue sky; from 5 to 9 P. M. overcast, threatening weather, and drizzling rain; from 9 to 12 P. M., overcast, hazy and squally.

Thursday, July 29.—Lat. 52° 59' N., Lon. 32° 27' W. Telegraph fleet all in sight; sea smooth; light wind from S. E. to S. S. E.; cloudy. Splice made in the cable at 1 P. M.; signals through the whole length of the cable on board both ships perfectly; depth of water, 1,550 fathoms.

Distance to the entrance of Valentia harbor, 813 nautical miles, and from there to the telegraph house the shore end of the cable is laid.

Distance from the entrance of Trinity Bay, N. F., 822 nautical miles, and from there to the telegraph house at the head of the Bay of Bull's Arm, 60 miles, making in all 882 nautical miles.

The Niagara has 69 miles further to run than the Agamemnon.

The Niagara and Agamemnon have each 1,100 nautical miles of cable on board; about the same quantity as last year.

At 7 45 P. M. ship's time, or 10 5 P. M. Greenwich time, signals from the Agamemnon ceased, and the tests applied by the electricians showed that there was a want of continuity on the cable, but that the insulation was perfect. Kept on paying out from the Niagara very slowly, and was constantly applying all kinds of electrical tests until 6 P. M., ship's time, and 11 30 P. M., Greenwich time, when we again commenced receiving perfect signals from the Agamemnon.

Thursday, Aug. 5.—At 1 45 A. M., the Niagara anchored. Distance run since noon yesterday, 64 miles. Amount of cable payed out, 66 miles 353 fathoms, being a loss of less than 4 per cent.

Total amount of cable payed out since the splice was made, 1,016 miles 600 fathoms. Total amount of distance run, 882 miles. Total amount of cable payed out over the distance ran, 134 miles and 600 fathoms, being a surplus of about 15 per cent.

At 2 A. M. went ashore in a small boat and informed the persons in charge of the telegraph house—half a mile from the landing—that the telegraph fleet had arrived, and were ready to land the end of the cable.

At 2 45 A. M. received a signal from the Agamemnon that she had payed out 1,010 miles of the cable.

At 5 15 A. M. the telegraph cable was landed. At 6 A. M. the shore end of the cable was carried into the telegraph house, and a strong current of electricity received through the whole cable from the other side of the Atlantic. Captain Hudson then read prayers, and made some remarks.

At 1 P. M. the steamer Gorgon fired a royal salute of twenty-one guns, and all the day was discharging the cargo belonging to the Telegraph Company.

Friday, Aug. 6.—Have been receiving all

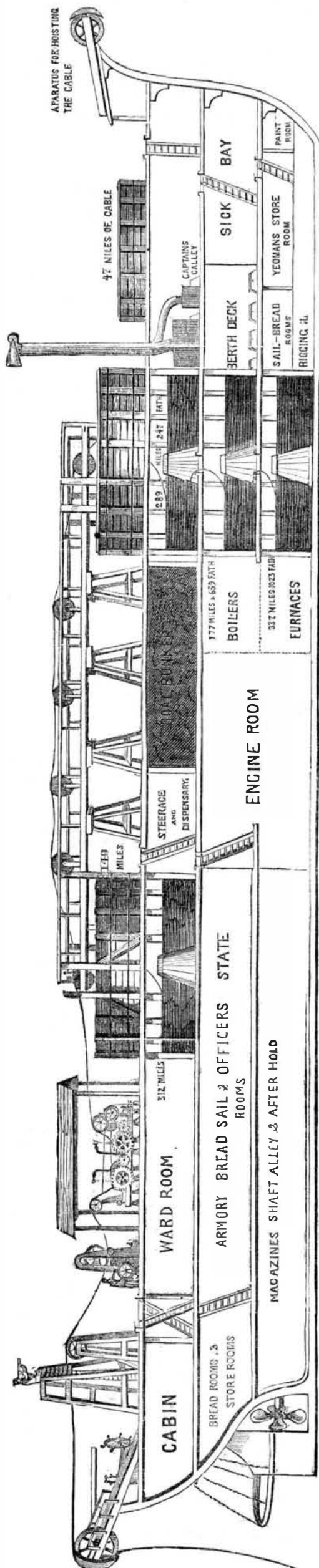
day strong electric signals from the telegraph house in Valentia.

NOTE.—We landed here in the woods. Until the telegraphic instruments are all ready and perfectly adjusted, communications cannot pass between the two continents, but electric currents are received freely. You shall have the earliest intimation when all is ready, but it may be some days before everything is perfected. The first telegraphic message from Europe to America will be from the Queen of England to the President of the United States, and the second the reply.

C. W. FIELD.

This is a singularly interesting paper, and should be preserved as an important international document, for it is the record of a union of the two countries, and as we trust, more powerful and lasting than any treaty ever devised by statesmen. The enterprise has called forth many gems of thought from great men, the best of which is the allusion to it by the Hon. Edward Everett in his oration at the opening of the Dudley Observatory, where, with an eloquence that epitomized the wonder of this modern miracle, he said:—

"I hold in my hand a portion of the identical electrical cable, given me by my friend, Mr. Peabody, which is now (April 22, 1857) in progress of manufacture, to connect America and Europe. I read upon it the following words: 'A part of the submarine electric telegraph cable, manufactured by Messrs. Glass & Co., of London, for the Atlantic Telegraph Company, to connect St. John's Newfoundland, with Valentia, Ireland, a distance of sixteen hundred and forty nautical, or nineteen hundred statute miles.' Does it not seem all but incredible to you that intelligence should travel for two thousand miles, along those slender copper wires, far down in the all but fathomless Atlantic never before penetrated by aught pertaining to humanity, save when some foundering vessel has plunged with her hapless company to the eternal silence and darkness of the abyss? Does it not seem, I say, all but a miracle of art, that the thoughts of living men—the thoughts that we think up here on the earth's surface in the cheerful light of day—about the markets, and the exchanges, and the seasons, and the elections, and the treaties, and the wars, and all the fond nothings of daily life, should clothe themselves with elemental sparks, and shoot



INTERNAL ARRANGEMENT AND APPARATUS FOR THE STOWAGE AND PAYING OUT OF THE CABLE ON BOARD THE NIAGARA.

with fiery speed in a moment, in the twinkling of an eye, from hemisphere to hemisphere, far down among the uncouth monsters that wallow in the nether seas, along the wreck-paved floor, through the oozy dungeons of the rayless deep;—that the last intelligence of the crops, whose dancing tassels will in a few months be coquetting with the west wind on these boundless prairies, should go flashing along the slimy decks of old sunken galleons, which have been rotting for ages;—that messages of friendship and love, from warm living bosoms, should burn over the cold green bones of men and women whose hearts, once as warm as ours, burst as the eternal gulfs closed and roared over them, centuries ago."

This brings us now to the history of the enterprise. The commercial men were astonished one morning by the appearance in the newspapers of the annexed card, which was the first issued by what is now the Atlantic Telegraph Company:—

NEW YORK, NEWFOUNDLAND AND LONDON TELEGRAPH COMPANY.

DIRECTORS IN NEW YORK.

- | | |
|---------------------------|----------------------|
| Peter Cooper. | Cyrus W. Field. |
| Moses Taylor. | Marshall O. Roberts. |
| Chandler White. | |
| Peter Cooper, | President. |
| S. F. B. Morse, | Vice President. |
| Moses Taylor, | Treasurer. |
| Chandler White, | Secretary. |
| David Dudley Field, Esq., | Counsel. |
| E. N. Gisborne, | Engineer. |

In 1856 Cyrus W. Field visited England, and obtained a capital of \$1,750,000, with which they at once set to work; and after due consultation as to the route, construction of the cable, &c., they ordered its manufacture. Both governments promised assistance, and Lieut. Maury announced in a report the existence of a plateau across the Atlantic, on which it could be laid. This was subsequently confirmed by Lieut. Berryman, who sounded the whole distance in the Arctic. The Boston Journal gives a perfect condensation of the failures that have thus far attended this enterprise, which we give *in extenso*:—

"In August, 1857, an attempt was made to lay down the Atlantic Submarine Cable, resulting in a disastrous failure. The cable was 2,500 miles in length, weighing nearly one ton per mile, capable of bearing a direct strain of over five tons without fracture. The center of the cable was formed by seven fine copper wires, twisted into a cord one-sixth of an inch thick. This strand was coated with gutta percha, forming a small rope of $\frac{3}{8}$ of an inch thick; then coated with hempen twine twice soaked in pitch and tar; lastly, an external sheathing of 18 iron wires, each wire being a strand of seven finer wires, making in all 126 wires.

The submersion was commenced on the 5th of August, 1857. There were present the six steamers, Niagara, Agamemnon, Leopold, Susquehanna, Willing, and Mind, intended to assist in various parts of the operation. The cable came up from the hold of the ship, around a central block, so to the open space above decks; it was there wound round grooved sheaths, geared together by cogs and firmly planted on girders. Thence it passed over a fifth sheath, out over the stern into the sea, sinking by its own weight. A trifling accident happened on the 6th; this was repaired, and on the 11th, 380 miles (statute) had been submerged. The engineer here concluded that there was too much "slack" in the cable's course, and some modification in the machinery was consequently made. This appears to have been badly attended to by a subordinate. The cable snapped, and thus ended the attempt of 1857.

It having been concluded from some good observations that the average state of the weather was much better on the Atlantic in the early part of summer, it was decided this year to attempt laying the cable in June. It was also thought best to begin the submersion in mid-ocean, and pay out toward either shore. Accordingly the telegraph fleet, consisting of the United States steam frigate Niagara and Her Majesty's steamers Agamemnon, Valorous and Gorgon, left Plymouth on Thursday, June 10, 1858. The Niagara had 850 tons, and the Agamemnon 450 tons coal, and each about 1,100 nautical, or somewhere about 1,500 statute miles of cable on board. The weather at first favor-

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