

a smart gale. Now, indeed, were the energy and activity of all engaged in the operation tasked to the utmost. Mr. Hoar and Mr. Moore, the two engineers who had the charge of the relieving wheels of the dynamometer, had to keep watch and watch alternately every four hours, and while on duty durst not let their attention be removed from their occupation for one moment, for on their releasing the brakes every time the stern of the ship fell into the trough of the sea entirely depended the safety of the cable, and the result shows how ably they discharged their duty. Throughout the night there were few who had the least expectation of the cable holding on till morning, and many remained awake listening for the sound that all most dreaded to hear—viz., the gun which should announce the failure of all our hopes. But still the cable, which, in comparison with the ship from which it was paid out and the gigantic waves among which it was delivered, was but a mere thread, continued to hold on, only leaving a silvery phosphorous line upon the stupendous seas as they rolled on towards the ship.

With Sunday morning came no improvement in the weather; still the sky remained black and stormy to windward, and the constant violent squalls of wind and rain which prevailed during the whole day, served to keep up, if not to augment the height of the waves. But the cable had gone through so much during the night, that our confidence in its continuing to hold was much restored.

At noon observations showed us to be in lat. $52^{\circ} 26' N.$, and lon. $23^{\circ} 16' W.$, having made good 130 miles from noon of the previous day, and about 360 from our starting point in mid ocean. We had passed by the deepest sounding of 2,400 fathoms, and over more than half of the deep water generally, while the amount of cable still remaining in the ship was more than sufficient to carry us to the Irish coast, even supposing the continuance of the bad weather should oblige us to pay out the same amount of slack cable we had been hitherto wasting. Thus far things looked very promising for our ultimate success. But former experience showed us only too plainly that we could never suppose that some accident might not arise until the ends had been fairly landed on the opposite shores.

During Sunday night and Monday morning the weather continued as boisterous as ever, and it was only by the most indefatigable exertions of the engineer upon duty that the wheels could be prevented from stopping altogether as the vessel rose and fell with the sea, and once or twice they did come completely to a standstill, in spite of all that could be done to keep them moving, but fortunately they were again set in motion before the stern of the ship was thrown up by the succeeding wave. No strain could be placed upon the cable, of course, and though the dynamometer occasionally registered 1,700 pounds as the ship lifted, it was oftener below 1,000, and was frequently nothing, the cable running out as fast as its own weight and the speed of the ship could draw it. But even with all these forces acting unresistedly upon it, the cable never paid itself out at a greater speed than eight knots an hour at the time the ship was going at the rate of six knots and a half. Subsequently however, when the speed of the ship even exceeded six knots and a half, the cable never ran out so quick. The average speed maintained by the ship up to this time, and indeed for the whole voyage, was about five knots and a half, the cable, with occasional exceptions, running about 30 per cent. faster.

At noon on Monday, August 2, observations showed us to be in latitude $52^{\circ} 35' N.$, longitude $19^{\circ} 48' W.$, having made good $127\frac{1}{2}$ miles since noon of the previous day, and completed more than the half way to our ultimate destination.

During the afternoon an American three-masted schooner, which afterwards proved to be the Chieftain, was seen standing from the eastward towards us. No notice was taken of her at first, but when she was within about half a mile of the *Agamemnon* she altered her course, and bore right down across