

within it, the latter is consequently protected from any such strain as can possibly rupture it or endanger its insulation without an entire fracture of the cable.

The construction of this cable is being superintended with the closest vigilance by Dr. Whitehouse, who stands in the first rank of men eminent in the science of electricity, and by Mr. Bright, the chief engineer of the Company, who has had great practical experience in electric telegraphs. With these gentlemen, under whom several trusty superintendents are employed day and night, Professor Morse and Professor Thompson of Glasgow, for some time past have been in constant communication, affording a further guarantee of the faithful performance of the work.

SECOND. SUBMERSION AND PRATICABILITY OF TELEGRAPHING THROUGH THE CABLE.

The submersion of the cable will be effected about the end of July or early in August, that period of the year which the uniform experience of ship masters (as shown in the valuable storm and rain charts, recently published by Lieut. Maury, embracing the observations of 265,292 days,) proves the North Atlantic to be in its quietest mood. Two large steamships will each of them take on board one half, or about thirteen hundred miles of the cable, and accompanied by steamers for the purpose of piloting and assisting, will proceed to a point in the ocean, midway between Ireland and Newfoundland, and there joining the two ends of the cable, and testing the security of the junction, will commence the submersion; one part of the expedition proceeding toward Valentia Bay, Ireland, and the other toward Trinity Bay, in Newfoundland; meanwhile constantly communicating with each other through the entire length of the cable.

It has been assumed that there will be a great strain on the cable in paying it out. To obviate the possibility of any injurious strain, and in order to pay out the cable in a ratio of speed greater than that of the ship, machinery peculiarly fitted for the purpose has been provided, with appliances for measuring the relative speed of the ship and cable, and for indicating, with precision, at all times, the force of the strain. The large size of the ships to be employed and the comparative freedom from agitation to which smaller vessels would be subjected; the peculiar strength and flexibility of the cable, the coiling of it on board so as to prevent twisting and kinking in paying out; with other appliances, to which I need not here particularly refer, leave little room for doubt in the minds of those best entitled to form an opinion on the subject, that the cable can and will be laid down without fracture or injury.

Then as to the practicability of telegraphing through such a length of wire, this has been so conclusively demonstrated in a long series of experiments undertaken for the purpose, that I need say nothing further on the subject than to refer to the letters of Professor Morse, Dr. Whitehouse and Mr. Bright, in relation to some of these experiments which have already been made public through the press.

THIRDLY, THE REMUNERATIVE PROSPECTS OF THE UNDERTAKING.

In reply to inquiries upon this head, it is right that I should mention in the first place, that the alliance formed between the Atlantic and the Newfoundland Companies makes the privileges granted to either company mutually