

AN ELECTRIC TELEGRAPH AROUND THE GLOBE.

We would present to those interested in the question a few facts and observations bearing upon the project of establishing a telegraphic communication around the globe, which is fast acquiring the faith and sympathy of the public mind on both sides of the Atlantic. And a project of this nature may be considered to have passed an important stage toward its realization when it has won its way to the universal conviction that it is possible and practicable, that no obstacle can be opposed to its execution which science, labor and capital may not overcome. The recent and remarkable achievements of these combined elements of human capacity have left, in fact, no room to doubt the practicability of surrounding the globe with the iron nerve of the electric telegraph, linking all its great capitals and centers of legislation, commerce, and intelligence with a ligament almost as sensitive as a nerve of flesh and blood. It can be done. These achievements prove it. The public mind believes it, anticipates, asks it, in various expressions of its wish and expectation. It is coming to be regarded as an indispensable and inevitable complement to the various lines of steam navigation that girdle the globe, and to the railways that embrace its continents within their iron arms. The result of the first submarine telegraphs has also indicated the lightning route of thought and intelligence around the earth. Both in Europe and America, the public mind seems to have adopted the idea that this route must cross the Atlantic. This is natural. The short line across the English Channel was crowned with success. An experiment on a larger scale was tried across the Irish Channel, and that succeeded. These precedents and proofs have produced and warranted the conviction, that a line of submarine telegraph may be laid down across the ocean between Halifax and the westernmost promontory of Ireland. Various plans have been projected and published for effecting this work. It is too late to doubt its practicability. Grant it. Concede to science, capital and labor, the physical possibility of stretching a wire-way for the carrier lightning from shore to shore. But, granting this, the enterprise could not escape two or three contingencies which would affect its value. After all that science could achieve, such a line would be exposed to accidents, perhaps as frequent and fatal as those to which the line between Dover and Calais is subject. And if it were severed at any distance between the two shores, could any power or skill connect it again without taking up the whole length? Let the most imaginative and enthusiastic believer in the unrevealed capacities of human science say, if he expects it will ever be able to repair such an accident without this process? Here, then, is a most serious liability to which such a submarine telegraph would inevitably be exposed.

Then there is another consideration which should affect the question of the route. A submarine telegraph across the Atlantic could only be the bare medium for the transmission of intelligence between two points nearly 3000 miles distant from each other. It would neither pick up nor perform any business on its way across the intervening expanse, unless it were occasionally to snub, with its electric touch, the nose of a sportive whale or porpoise. For through this long reach it could receive no tributaries and put forth no offshoots of intelligence. It would do nothing, earn nothing to pay its passage through the watery desert, until it reached the shore of the continent to which its messages were to be delivered. It would be like an express train running between Boston and New York without stopping at a single intermediate station.

Now there is a route for a telegraph around the globe which would be entirely free from the dangerous liability and the unprofitable contingency which have been mentioned. The government or people of the United States will soon continue the trunk line of the telegraph to Oregon, via California. On the other side the telegraph lines of Western Europe are reaching eastward toward the Ural mountains. The Asiatic provinces will inevitably induce the Russian government to promote the extension of a line in that direction. It would, doubtless, for its own purposes, continue it as far as the Ural mountains, in the course of a few years. The whole territory between this range and California is owned by Russia, Great Britain and the United States. They would not be obliged to ask of any other governments "the right of way" at any other portion of the distance between these two points. Then, why may they not unite in connecting them by a line of telegraph crossing Behring's Straits? What physical or pecuniary obstacle could be interposed to this enterprise which their united capacities might not easily surmount? Would the distance present such an obstacle? A larger distance than that included between the two points has been threaded by the telegraph wires in the United States; and that by individual enterprise, in a country possessing little capital for such purposes.

Would the transit of Behring's Straits present a difficulty? They are said to be only 40 or 50 miles wide, with two or three islands in the middle; so that no space of water would have to be crossed wider than the straits between Dover and Calais. The Russian government could easily establish a watch over the line through all its possessions in Europe, Asia and America. The British and American governments could do the same in their

respective territories. An accident might be almost as easily repaired at any point on the line as if it occurred between London and Liverpool. The route, therefore, would be always safe from the great disasters to which a submarine wire between Halifax and the Irish coast would be constantly exposed. This is a most important consideration in its favor. Then there is another of almost equal value. A line from St. Petersburg to San Francisco would create and perform a great deal of way-work between the two cities. It would pass through the principal provincial centers of the Russian empire, from the metropolis to Behring's Straits; and it would doubtless be employed daily by the government for the transmission of dispatches and public intelligence between it and those distant territories of its dominion. Then, on the North American continent, it would make and multiply business between Behring's Straits and San Francisco. Within this vast space, it would come into frequent requisition by the governments and people of Great Britain and the United States. Passing through the British possessions on the Pacific, it would cross the theatre of the Hudson Bay Company's operations, and become an invaluable agency for the transmission of its mercantile intelligence to England and from station to station along the coast. It would furnish stations along the Pacific shore, at which all British vessels sailing in that direction might receive orders or dispatch reports.

Then the vast amount of whaling business carried on in the Arctic ocean by citizens of the United States would afford much profitable employment to this portion of the line. During the two years 1849 and 1850, one hundred and ninety-nine American whale-ships passed through Behring's Straits, carrying more men than are employed in the United States navy at one time, and taking \$17,000,000 worth of oil. Who can tell what an amount of intelligence these ships, exposed to so many accidents and vicissitudes of fortune, would send over the line between those straits and San Francisco?

Thus the telegraph between San Francisco and St. Petersburg would receive a vast amount of business at the intermediate way stations; in addition to the amount which a submarine line would convey across the Atlantic. Then, adding as a grand trunk line around the globe, it might put forth branches towards the south of Asia and Europe. In the course of civilization one of these branches might extend southward, threading the ports on the eastern coast of China. Thus, in the end, it might become the spinal nerve to that marvelous system of sensibilities which shall flash, with the wing of thought, intelligence from country to country around the globe. — [Philadelphia North American.]

[From the Boston Journal of Sept. 5th.]

THE SIEGE OF CHARLESTON.

WHY THE SHELLING OF THE CITY WAS DISCONTINUED—THE MONSTER SHELLS FIRED FROM THE 300-POUND PARROTT—TREMENDOUS PREPARATION FOR A BOMBARDMENT WITH GREEK FIRE.

A gentleman of much intelligence, recently from Morris Island, where he had unusual facilities for observation and gathering information, has communicated to us a variety of interesting facts connected with the siege of Charleston, which throw much light on the state of affairs there. He informs us that the reason why General Gilmore did not continue his bombardment of Charleston with the "Greek fire" shells, was because the shells sent were ignited on the percussion principle, and being discharged from a gun elevated at an angle of thirty-eight degrees, took their flight at the same angle, with a longitudinal rotary motion, base downward, and therefore struck base downward instead of upon the percussion end, and did not explode. Only two are known to have exploded—one which fell into a warehouse and another which fell in a street. This peculiar motion and descent of the shell was a new discovery in artillery practice, then for the first time made, and the ordnance department was not furnished with a remedy for the unlooked-for contingency. To this fact alone Charleston owes the delay of the hour of its doom. Time fuses, which will set matters all right, were at once sent for, and have doubtless arrived at Morris Island before this, and very likely Charleston is at this moment experiencing the dreadful effects of a shower of "Greek fire" shells, fifty hundred of which have been ordered for the bombardment of that nest of treason. The gun from which the shells were first fired was a 200 pounder Parrott, which can, through a shell no less than seven miles, when aimed at an angle of forty five degrees. The first shells went over Charleston, the gun being aimed at too sharp an angle.

Our readers will be pleased to learn that General Gilmore has not less than thirty Parrott guns mounted that will throw shells plump into Charleston. Also, that the use of Greek fire shells to bombard that rebel stronghold was personally ordered by President Lincoln. The Greek fire burns for twenty minutes. It will burn on the water as well as on land, and each shell covers a surface of one hundred square feet with flame. The shell bursts into about one hundred and thirty pieces, or ten times as many as the ordinary shell. Of course the effect of these shells will be to set Charleston in flames, which nothing can subdue. In addition to the Greek fire shells, a large quantity of improved shrapnel shells, made by

the inventor of the Greek fire shell, and containing from five hundred to one thousand bullets each, have been sent to Morris Island, to be transferred thence into the rebellious city in a manner not very pleasing to the enemy. These shells are fired with time fuses and are very destructive of life.

The celebrated 300 pound Parrott gun which General Gilmore has weighs twenty-seven thousand pounds. It took two thousand men nine nights to get the monster into position, the drag teams breaking down seven nights in succession the enemy shelling the party all the while and men being killed nightly. Nothing was done with it by day, the gun being covered with bushes to conceal it from the enemy's fire. The diameter of the bore is ten inches, the charge of powder twenty-five pounds, and the shell that goes out of it is as high as a flour barrel, weighs three hundred pounds, and contains seventeen pounds of mortar powder. The execution of one of these shells on Sumter is considered equal to three 200-pound shells. But two of these immense rifled guns have been made, although twenty more have been ordered for the army. None have been ordered for the navy. General Gilmore at first had only one, but another has just been sent to him. The 300-pounder, when it exploded, was in charge of an infantry captain who had never fired a cannon before in his life. He was cautioned that some accident would happen if he was not very careful. On the twenty-fifth round the shell, containing seventeen pounds of powder, was fired, the percussion fuse was screwed half way down and could not be got any further, when the captain said "Let it go at that." The consequence was that when discharged the fire communicated down by the thread to the shell, causing the latter to explode before it left the gun, and breaking off twenty inches of the muzzle. The gun was repaired and got ready for use again in two days. It burst on Friday at 12 o'clock, and was firing again on Sunday as well as ever. These guns have been fired with forty pounds of powder, and sent a ball through nine inches of wrought iron plates and a foot of oak timber, by which the iron was backed. It has also sent a ball through twenty-six feet of earth. The larger a gun having a rifle bore is made the steadier and truer the ball or shell is sent—indeed, the accuracy of a rifle is attained.

Mr. R. P. Parrott, the inventor of these guns, commenced making them in 1855, at his own expense, continuing his experiments without aid from the government till the rebellion broke out. He then began to make 10-pounders, and has now advanced from that small beginning to 300-pounders.

He is now engaged in a 500-pounder, and if successful will try a 2000-pounder. Over twenty-five hundred of these guns have been made by Mr. Parrott, who furnishes them at a less cost than the government can make them at its own foundries, indeed supplying them at a trifle above cost, depending upon the shells which he furnishes to the government for his profits. Another fact which is very creditable to him is, that when the price of iron and of labor advanced he did not raise his prices, although all the other foundries in the country did. About thirty-three of these guns, ranging from three hundred to ten pound caliber, are turned out weekly at Mr. Parrott's establishment, the West Point foundry, at Cold Springs, New York.

The demands for rifle cannon is now so great that the foundries of this country are unable to supply them; and extensive orders are sent to Europe. The State of Massachusetts alone has ordered seventy from abroad.

THE NEW NAPOLEON PAMPHLET.

THE EMPEROR, POLAND AND EUROPE—RUSSIA AND THE THREE POWERS.

A new French pamphlet is published by M. Dentu, the recognized government publisher, and is entitled *L'Empereur, La Pologne et L'Europe*. The writer (said to be M. Moëquard) states that England and Austria are determined to act with France and that their unanimity is a security for peace. He adds that could Russia be brought to join them, the success would be more certain, and proceeds:

If the Cabinet of St. Petersburg should persist in the deplorable course it has thought proper to adopt, the Governments which have loyally appealed to its better feelings would, though with regret, be compelled to suspend relations which, for the time being, had become without an object. An Anglo-Franco-Swedish squadron might operate in the Baltic, while an Anglo-Franco-Italian fleet would appear in the Black Sea. It is desirable to avoid laying the theatre of a war in the centre of Europe. The western frontiers of the Russian Empire should be closely watched, and that would be the natural duty of Austria and Prussia.

Will Prussia, who, since the beginning of the Polish insurrection, has done her best to serve Russia, even transgressing the law of nations in her desire to do so, at the risk of bringing about a general war, join the Western alliance, and offer all the desirable guarantees? It is necessary that Prussia should abandon the ambiguous position she has taken up. The three powers want to know if Prussia sides with them or with Russia. Will King William, forgetful of the lessons of history, compel us to resort to another Jena, to arrive at another Friedland? The liberal views evinced by the Prussian deputies, and the practical good sense which animates the

population of the kingdom, permit us to hope that disastrous scheme shall be laid aside.—The German people, however, will know on whom to rest the responsibility of a continual war, which must necessarily injure their interests. But even then, Germany would be spared as much as possible, so that the whole country should not be made to suffer for the blindness of a few misguided men. The powers would confine themselves to use Prussia as the high road to Russia. For neither France nor her Government entertains the slightest ill will nor harbors the remotest design against Germany; we know all the eminently good qualities of the German people, and all that great people, which suffers from its divisions, possesses of strength and power. And far from wishing to injure it, we form wishes for its future and its prosperity. Prussia possibly holds in her hands at this moment peace or war. May she, by another attitude, disappoint those who predict she is hastening to a catastrophe! A generous inspiration would soon add to the importance of a State which, for the last fifty years, unfortunately for itself, has held too much aloof from events, and kept as it were inactive.

The word of France is pledged that serious ameliorations should be effected in the condition of the Poles. The Government of Her Britannic Majesty has laid down, with sound practical sense, that the first element of a good government was the existence of mutual confidence between the rulers and the ruled. And it has pointed out that, to establish a somewhat stable order of things, it was necessary that the fresh organization should embrace all the Polish provinces—that is, to say, the whole of the country which the various partitions have taken from Poland to submit to the Empire of Russia. We are happy to find ourselves in thorough conformity of views with our old and gallant Crimean ally.

The government of the Emperor Napoleon has made known from the outset that the combinations which had been tried and failed should be abandoned, and that the root of the evil should be extirpated. The Emperor Alexander II. must bear in mind that the conditions would be more stringent after than before a war. He might not have an opportunity of renewing the episode of the interview on the Neime. France, on her sword is drawn, will hold herself bound to liberate Lithuania as she liberated Lombardy. The Emperor Napoleon knows that if anything can dissolve hostile parties in France it is to do what all have failed in; that what would most effectually consolidate his dynasty would be a war for the emancipation of Poland, the reparation of that great injustice; he knows that it would secure to him and his the blessing of Heaven and the gratitude of men. The Emperor in that holy cause prosecutes no personal design, and reserves for himself no thing but the satisfaction of fulfilling a noble duty. The Russians congratulate themselves on having gained time, and they flatter themselves that the lateness of the season will soon render us unable to act. Let them remember that it was on the 20th of September that we conquered Alma, and at Jena we were victorious on October 14th.—"The Prince Royal of Sweden might have reached St. Petersburg before I got to Moscow," said Napoleon.

But why talk so much of war when there are yet so many reasons for not despairing of peace? Only it will be well that the character of Napoleon III. should not be misunderstood at St. Petersburg, and that it should be understood that there are some things he cannot allow to be done. If the Emperor Alexander is animated by the spirit of moderation which inspires our Government, nothing can be more simple than to proclaim an armistice and to cease those military preparations which are like a threat of war, and therefore a source of uneasiness for Europe. But if, by some motive, difficult to understand, his Majesty the Emperor of Russia, should meet with another refusal the moderate demands of the Powers, then we should be compelled once more to leave to the decision of arms and to the chances of war what might still be settled by reason of justice.

[From the Boston Traveller, August 31.]

MASSACHUSETTS PREPARING FOR EVENTUALITIES.

Not a long time will now elapse before the fortifications of Boston harbor will be fully defended against attacks from iron-clads and other vessels by the mounting of a large number of fifteen-inch Rodman guns. The government agents are now hard at work in the preparations for mounting these guns, a number of which, cast at Alger's foundry, have already been landed on the forts of the harbor. The carriages of these guns, which are monuments of skill and ingenuity, were manufactured at the Watertown Arsenal. It is stated that the cost of mounting one of these monstrous masses of iron upon the carriages will be between four and five hundred dollars.

[From the Salem Register, August 31.]

The reconstruction of Fort Pickering and Lee is being steadily prosecuted. Some two hundred and eighty men are employed, and there is still room for more. As the agricultural demand for laborers is diminishing the works on Salem Neck offer a good opportunity for employment. We understand that a considerable addition to the force is desirable, in order to hasten the completion before the winter months arrive.