

all minds, not only with joy, but with a sort of religious solemnity. It is an occasion upon which almost every one seems instinctively.

"To look through nature up to nature's God."

It is said that Professor Morse, while long engaged in the preliminary process of his great invention, was in the habit of making his investigations the subject of daily prayer. We notice, too, in the account of that most intensely interesting voyage of the noble ship Niagara, while laying the cable, religious services are mentioned. And on the successful arrival at Trinity Bay, Capt. Hudson of the Niagara, sent the following beautiful telegraphic dispatch to his family, in Brooklyn, New York:

"TRINITY BAY, August 5, 1858.

"God has been with us. The telegraph cable is laid without accident, and to Him be all the glory. We are all well. Yours affectionately.

WM. L. HUDSON."

THE FIRST TELEGRAPH UNDER WATER.

Doctor John J. Craven, of Newark, New Jersey, in 1846, after a great number of persevering experiments with a variety of substances, finally succeeded in making a cable by insulating a wire with gutta percha, and laying it first in the Passaic River, and afterward across the North River, between New York and Jersey City. Such a fact is of great interest; and now that two hemispheres are connected, and a new era has dawned upon us by an instantaneous communication between the Old World and the New, so wonderful and magnificent that the human mind almost fails to comprehend it—an event which makes fable tame and miracle commonplace—the world should not fail to do justice and to render its sweet praise to all those who have contributed by their genius to this sublime result. That Mr. Craven is the actual inventor of the cable, and first successfully laid it beneath a body of water, there is, we suppose, no doubt. The N. Y. Tribune of April 29, 1848, contains the following paragraph:

"A DESIDERATUM OBTAINED.—It is known that it has hitherto been impossible to send the electric fluid across telegraph wires when they were submerged, and that persevering efforts have been made to obviate the difficulty. We learn that it has at last been done, Mr. J. J. Craven having succeeded, after several experiments, in discovering a mode of conveying the fluid through water, and that he has applied it with perfect success at the crossing of the Passaic River on the New York and Philadelphia line. He is also about to apply it to crossing the Hudson from Jersey City to this side."

It is not often that inventors and discoverers can find so complete a recognition of their claims and merits by contemporary witnesses as this. And now that time has made manifest the immense importance of these early labors of Mr. Craven in the science of telegraphing, let the world be none the less generous in acknowledging his claims.

Mr. Craven is still a resident of Newark. At the time of his experiments on a submarine cable he was in the employ of Professor Morse, but he afterward acquired a professional education, and is now a successful physician at Newark.

When the fact was once established that the electric current could be conducted by telegraph under water, experiments rapidly multiplied in this country and in Europe, and it was not long before short lines of submarine telegraphs were successfully laid, some of which may be mentioned here.

SUBMARINE TELEGRAPHS IN EUROPE.

In the latter part of May, 1852, Great Britain and Ireland were brought into instant communication through the submarine telegraph. The distance between the points of connection—Hollyhead and Howth—is sixty five miles, and the greatest depth five hundred and four feet. There was only one wire in this cable, with the indispensable coating of gutta percha, which was protected and strengthened by the iron wire covering the outside. It was laid at the rate of four miles per hour, and fell so evenly that only three miles more than the actual distance traversed was required.

Scotland and Ireland were connected by a cable of six wires in May, 1853. The distance is about thirty miles, and was traversed by the steamer in not more than ten hours. The following June a cable was laid from Orfordness, in England, to the Hague, in Holland, a distance of one hundred and fifteen miles. The task was accomplished in thirty-four hours, and only four and a half miles of cable were required in the paying out over the actual length from point to point, making hardly one hundred and twenty miles altogether. Another cable connects Dover with Ostend, making the third between England and the Continent.

In the summer of 1854 a telegraphic union was effected between Corsica and Sardinia, in Italy, the Sardinian Government having granted three vessels of war to assist in the undertaking. This work was attended with much difficulty, in consequence of the breaking of a part of the wire. The submerging of a cable between Corsica and the island of Sardinia was successfully accomplished shortly after; but the attempt which was subsequently made to connect the island of Sardinia and Algeria, and thus establish immediate communication between the continents of Europe and Africa, was unsuccessful, and has not since been attempted. That it will be effected, and at no distant day, there is no reason to doubt, as the obstacles are not of an insurmountable character.

Since the Atlantic cable has been successfully laid, the London News says that England will not rest till she has carried her Indian telegraph from the Land's End, in Cornwall, to Gibraltar, thence by the Red Sea to Bombay. The next step will be to connect Ceylon or Madras with Singapore and the Australian colonies by the electric wire.

On the evening of the telegraph cable celebration in Montreal, the principal feature of the entertainment at the Theatre Royal, was the delivery of an original dramatic poem, by the author of Columbus, on the Atlantic Telegraph, representing America and Britannia; the parts were most ably sustained by the Misses Denin, dressed in character, and the national anthem and Hail Columbia were sung by the entire company. The following is the poem:—

AMERICA.

Am.—Hush! not a murmur, not a whispered sound!
Let every voice be mute—for all around
Teams with strange rumours—and now here now there
Come messengers with tidings great and rare
Filling with joy and peace the still prophetic air,
But who comes here with such majestic mien
In face a goddess, and in gait a queen?
Ancient in years, in actions ever young,
Britannia comes, she whom old bards have sung
What time old worlds with mighty triumphs rang.

Enter BRITANNIA.

Sweet elder sister, welcome to our shore!
Hail to the mother of great men of yore,
Patron of arts and mistress of the sea,
Thou who first taught old nations to be free,
And made thy sea girl isle the house of liberty.

Brit.—And hail young genius of the western sky,
My sister, friend, companion and ally,
Where British accents sound thy streets among,
And CHATHAM'S language is the mother tongue.
Ye northern hearts still subject to my sway,
Canadian workers of the present day,
Offshoots of ancient France—heroic—true;
England remembers, ye are Norman too,
And British emigrants of worth the staple,
Rose, shamrock, thistle grafted on the maple.
'Tis done, the work is done;
Far below light of noonday sun,
The chain of peace is laid—
Where spade no'er turned the sod,
Where mortal foot ne'er trod,
Where none can see, save God,
The chain of peace is laid.

Am.—Honor to Science pay,
Honor to those in this our day,
Who wrought the glorious work.
Great Franklin, when he first essayed
To turn Heaven's lightning from its course,
Ne'er dreamt of wonders since achieved
By Wheatstone, Cook, and Morse.

Brit.—Indignantly old Neptune rose
With forehead high and hoary,
To lash his billows upon those
Who dared dispute his glory.
He launched the lightning and the flood,
And rent the rope in twain,—
Those men of Anglo-Saxon blood
Went home and tried again.

Am.—It comes—the message comes,
Boom the cannon, hark the drums—