

ELECTRO-MAGNETIC TELEGRAPH.

COMMUNICATION

FROM

THE SECRETARY OF THE TREASURY,

TRANSMITTING

*The report of Professor Morse, announcing the completion of the electro-magnetic telegraph between the cities of Washington and Baltimore.*

JUNE 6, 1844.

Referred to the Committee on Commerce.

TREASURY DEPARTMENT, June 4, 1844.

SIR: I have the honor respectfully to transmit herewith, for the information of the House of Representatives, a report, dated the 3d instant, from Professor Sam. F. B. Morse, announcing the completion of the electro-magnetic telegraph between Washington and the city of Baltimore, as authorized by the "Act to test the practicability of establishing a system of electro-magnetic telegraphs by the United States," approved the 3d of March, 1843.

I beg leave to state, that the perfect practicability of the system has been fully and satisfactorily established by the work already completed.

The subject is respectfully submitted to the consideration of Congress, for such further directions in the matter as may be deemed expedient.

I have the honor to be, very respectfully, your obedient servant,  
McCLINTOCK YOUNG,  
*Secretary of the Treasury ad interim.*

Hon. JOHN W. JONES,  
*Speaker House of Representatives.*

WASHINGTON, June 3, 1844.

SIR: I have the honor to report that the experimental essay authorized by the act of Congress on March 3d, 1843, appropriating \$30,000 for "testing" my "system of electro-magnetic telegraphs, and of such length, and between such points, as shall test its *practicability* and *utility*," has been made between Washington and Baltimore—a distance of forty miles—connecting the Capitol in the former city, with the railroad depot in Pratt street, in the latter city.

Blair & Rives, printers.

On the first point proposed to be settled by the experiment—to wit, its *practicability*—it is scarcely necessary to say (since the public demonstration which has been given of its efficacy, for some days past, during the session of the different conventions in the city of Baltimore) that it is fully proved.

Items of intelligence of all kinds have been transmitted back and forth, from the simple sending of names, to the more lengthened details of the proceedings of Congress and the conventions. One fact will, perhaps, be sufficient to illustrate the efficiency and speed with which intelligence can be communicated by the telegraph.

In the proceedings of the democratic convention at Baltimore for the nomination of a candidate for President of the United States at the next election, the result of the votes in the nomination of the Hon. J. K. Polk was conveyed from the convention to the telegraphic terminus in Baltimore, transmitted to Washington, announced to the hundreds assembled in front of the terminus at the Capitol, and to both Houses of Congress; the reception of the news at Washington was then transmitted to Baltimore, sent to the convention and circulated among its members—all before the nomination of the successful candidate was *officially announced* by the presiding officer of the convention.

In regard to the *utility* of the telegraph, time alone can determine and develop the whole capacity for good of so perfect a system. In the few days of its infancy, it has already casually shown its usefulness in the relief, in various ways, of the anxieties of thousands; and, when such a sure means of relief is available to the public at large, the amount of its usefulness becomes incalculable.

An instance or two will best illustrate this quality of the telegraph:

A family in Washington was thrown into great distress by a rumor that one of its members had met with a violent death in Baltimore the evening before. Several hours must have elapsed ere their state of suspense could be relieved by the ordinary means of conveyance. A note was despatched to the telegraph rooms at the Capitol, requesting to have inquiry made at Baltimore. The messenger had occasion to wait but *ten minutes*, when the proper inquiry was made at Baltimore, and the answer returned that the rumor was without foundation. Thus was a worthy family relieved immediately from a state of distressing suspense.

An inquiry from a person in Baltimore holding the check of a gentleman in Washington upon the Bank of Washington, was sent by telegraph, to ascertain if the gentleman in question had funds in that bank. A messenger was instantly despatched from the Capitol, who returned in a few minutes with an affirmative answer, which was returned to Baltimore instantly; thus establishing a confidence in a money arrangement, which might have affected unfavorably (for many hours at least) the business transactions of a man in good credit.

Other cases might be given; but these are deemed sufficient to illustrate the point of utility, and to suggest to those who will reflect upon them, thousands of cases in the public business, in commercial operations, and in private and social transactions, which establish beyond a doubt the immense advantages of such a speedy mode of conveying intelligence.

In the construction of this *first line of conductors*, it was necessary that experiments should be made to ascertain the best mode of establishing them. The plan I first suggested in my letter to the Secretary of the Treasury in 1837, (published in House report No. 753, April 6, 1838,) of placing my con-

ductors upon posts thirty feet high, and some three hundred feet apart, is, after experiment, proved to be the most eligible. The objection, so strongly urged in the outset, that, by being exposed above ground, the conductors were in danger from evil-disposed persons, had such weight with me, in the absence of experience on the subject, as early to turn my whole attention to the practicability of placing my conductors in tubes beneath the earth, as the best means of safety. The adoption of this latter mode, for some thirteen miles in England, by the projectors of the English telegraph, confirmed me in the belief that this would be best. I was thus led to contract for lead pipe sufficient to contain my conductors through the whole route. Experience, however, has shown that this mode is attended with disadvantages far outweighing any advantages from its fancied security beneath the ground. If apparently more secure, an injury once sustained is much more difficult of access, and of repair; while upon posts, if injury is sustained, it is at once seen, and can be repaired, ordinarily almost without cost. But the great advantage of the mode on posts over that beneath the ground, is the cheapness of its construction. This will be manifest from the following comparative estimate of the two modes in England and in America:

*Cost of English telegraph.*

In pipe, £237 6s., or \$1,275 per mile. On posts, £149 5s., or \$662 per mile.

*Cost of American telegraph, as estimated in House report No. 17, 27th Congress, 3d session.*

In pipe, \$583 per mile. On posts, from \$350 to \$400 per mile.

These comparisons also show how much less is the cost of the American telegraph, even at the highest estimate.

But these estimates of the cost of construction largely exceed the actual cost, under the improved modes recently suggested by experiment, and now adopted; and the cost of the line between Baltimore and Washington, already constructed, involves numerous expenditures of an experimental character, which will not be incident to an extension of the line onward to New York, if that shall be deemed desirable.

Of the appropriation made, there will remain in the treasury, after the settlement of outstanding accounts, about \$3,500, which may be needed for contingent liabilities, and for sustaining the line already constructed, until provision by law shall be made for such an organization of a telegraphic department or bureau as shall enable the telegraph at least to support itself, if not to become a profitable source of revenue to the Government.

I will conclude by saying that I feel grateful for the generous confidence which Congress has thus far extended toward me and my enterprise; and I will cheerfully afford any further and more detailed information on the subject of the telegraph, when desired, and will be prepared to make and execute any desirable arrangements for the extension of it that Congress shall require.

With great respect, your obedient servant,

SAM. F. B. MORSE,

*Superintendent of electro-magnetic telegraph.*

To the Hon. McCLINTOCK YOUNG,  
*Secretary of the Treasury ad interim.*