

THE COMING OF THE TELEGRAPH TO WESTERN PENNSYLVANIA

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THE sonorous bass resounding through archways of sky: that was its immemorial speech. But electricity in the late 1830's learned an American-invented argot of dots and dashes, of spaced impulses. A half-amused Congress in the last hour of its session voted \$30,000 for a highway of copper thread between Washington and Baltimore; and Samuel F. B. Morse, lately a professor of the arts of design, within fourteen hectic months saw the channel of his hopes spanning the forty miles. On May 24, 1844, in the Supreme Court room of the national capitol, a cluster of spectators surrounded an odd little machine with the inventor presiding at its key. Annie Ellsworth made her inspirational choice of the first message; and instantly in Baltimore a strip of tape was spelling out, "What hath God wrought!" In 1845 the line was extended to Philadelphia; and late in 1846 the magnetic keys were talking to Pittsburgh.¹

The optimist who built the first trans-Allegheny strand, from Philadelphia to Pittsburgh, was one Henry O'Rielly,² an Irish-born firebrand, sometime journalist and postmaster, a promoter of far-reaching vision but of myopic finances. Electricity was something that happened when wires were attached to a Grove battery—a group of cells containing nitric and sulphuric acid. O'Rielly

¹ The indispensable history of the telegraph in America is Alvin F. Harlow, *Old Wires and New Waves* (N. Y., 1936), the bibliography of which lists the earlier volumes on the subject. Of particular interest for western Pennsylvania are W. B. Wilson, *From the Hudson to the Ohio* (Philadelphia, 1902), 29-39, and a lengthy article, unsigned, in the *Pittsburgh Dispatch*, Sept. 22, 1888. The large collection of Henry O'Rielly MSS in the New York Historical Society, invaluable for a study of the financial and litigious aspects of Pennsylvania telegraphs, has not been used for this somewhat informal paper.

² E. R. Foreman, "The Henry O'Rielly Documents in the Archives of the Rochester Historical Society," *Rochester Historical Society Publication Fund Series*, IX (1930); J. M. Parker, "How Men of Rochester Saved the Telegraph," *Ibid.*, V (1926). The *Dictionary of American Biography* sketch lists the subject under the spelling he originally used: O'Reilly.

knew just about that; whatever else was needful he might find in Alfred Vail's *Description of the American Electro-Magnetic Telegraph*, the error-sprinkled textbook of the infant industry. But, save a possible handful of tinkering experimenters, who knew more? O'Rielly was in the field when the first sentient tendrils of what was to become a nation-wide interlacing were sprouting between the eastern cities. The Magnetic Telegraph Company began building its line between Philadelphia and New York in the autumn of 1845; and O'Rielly, for the same company, strung the link between Baltimore and Philadelphia.

Treating with inventor Morse and Postmaster-General Amos Kendall, he obtained the contract for a great telegraphic system from the seaboard to the young capitals of the Mississippi basin. The promoter undertook to "use his best endeavors to raise capital for the construction of a line of Morse's Telegraph" that from Philadelphia should run "through Harrisburg and other intermediate towns to Pittsburgh, and thence through Wheeling and Cincinnati, and such other towns as the said O'Rielly and his associates may elect, to St. Louis, and also to the principal towns on the lakes"—and to construct the first link, to Harrisburg, within six months, or else forfeit the agreement. Almost every phrase of the contract was a picnic-ground for litigation; and before the wires reached Pittsburgh, lawyers were at the feast.

O'Rielly's crews started work in September, 1845, following the line of the Harrisburg, Portsmouth, Mt. Joy & Lancaster Railroad eastward. Small chestnut poles with the bark left on, planted eighteen to the mile—

Sink the poles, boys, firm and strong . . .
Solder the joints of the mystic thong;

a copper wire caught between spans by a double-hitch to walnut pins, insulated at the pins in a marvelous manner by wrappings of cotton cloth dipped in beeswax—but a telegraph line! It proved itself when, on January 8, after a few days of pounding and adjusting without intelligible signal, the operator at Lancaster forwarded clearly to his colleagues at Harrisburg the words: "Why don't you write, you rascals?" Not very Biblical, this first message; but the fantasy of the wires had become fact. And as a Pennsylvania solon told his constituents, of an evening about the

tavern fireplace, "This telegraph is a great thing. When I had the honor of representing you in the legislature, I often thought about it, and having turned the subject over in my mind, the conclusion reached by me in regard to it is that it will do very well for carrying letters and small packages, but it will never do for carrying large bundles and bale boxes."

Winter winds played eerie music on that wire stretched across Dauphin and Lancaster counties; and broke the string nearly every day. Fips and dimes were few in the office tills. People came, gaped, perhaps had their names relayed from the other terminus, took away their piece of stippled tape as evidence of the wonder. But eight dollars and fifty cents for a week's gross buttered no parsnips. After a late February blizzard had shattered the wire, O'Rielly ordered the pieces sold for old copper, the proceeds to be used against the arrears in the operators' boarding and washing bills.

O'Rielly's ardor was more resilient than his copper. His successful construction of the line between Baltimore and Philadelphia made investors more amenable; and within a few months he had sold enough stock in Philadelphia and Pittsburgh to begin again the westward line. The wire (three-strand iron wire this time; another "very superior" article which was to be replaced within a few years) was strung between Harrisburg and Philadelphia in September, 1846. Along the Cumberland Valley Railroad the line dipped from Harrisburg to Chambersburg, and pushed westward—"in defiance of winter storms upon the mountains"—beside the turnpike through Bedford and Greensburg.

By the fastest combinations of existing modes of transportation, Pittsburgh was receiving its Baltimore and Philadelphia news three days after the events, its New Orleans news twelve days after. The *Great Western* was yet the speediest harbinger of European advices; a sailing from Liverpool on July 25, for instance, brought Continental news to Pittsburgh readers on August 14. The desire for timeliness was becoming more avid; a day's delay in the Eastern mails was likely to bring an editorial scolding. For the President's message to Congress, December, 1846, Pittsburgh newspapers arranged for the National Road Stage Company (connecting with the Baltimore & Ohio at Cumberland) to rush the text pell-mell. The speech, delivered on December 8th, was printed in full in the papers of the 11th—all ten or eleven columns of it,

mostly in glorification of the Mexican War ("the tremendous, and we should say unnecessary, length of this specious and ill argued paper . . .," complained the *Commercial Journal* after its compositors and devils had been working all night). Then a persuasive gentleman came to Pittsburgh, Mr. O'Rielly, who would send these three- and four-day intervals into the limbo of the obsolete. "A very gentlemanly and accommodating person," Pittsburghers found him; they cherished his oratorical periods, bought his telegraph stock, and rented him an elegant suite in the Odeon Building on Fourth and Vine. Shortly the "Pittsburgh Telegraphery" was open, its three apartments "An Enclosure designed exclusively for LADIES and for Gentlemen accompanying them," one "Designed exclusively for Persons Writing or Receiving Despatches by Telegraph," and "an Enclosure designed exclusively for Gentlemen of the Press, Resident in Pittsburgh, or visiting the City."

O'Rielly's line, the Atlantic and Ohio, was completed between Philadelphia and Pittsburgh on December 26, 1846. After some delay while extra cells were added to the batteries, the signal strength was adequate; and at 2:15 on the afternoon of December 29, a Pittsburgh operator tapped out the first regular message. Appropriately for the martial times, it was Adjutant-General Bowman's compliments to President Polk, with the advice that the Second Pennsylvania Regiment was getting ready for the steamboat voyage down the Ohio. There followed the surge of the curious, with "reply requested" greetings to Philadelphia friends; congratulations to the exultant host; the exchange of market quotations and news briefs between Pittsburgh and the East. As editor Riddle, of the *Commercial Journal*, declared next day, "We will now know what passes in Congress, perhaps, as soon as the people on Pennsylvania Avenue, and the New York merchant will not sooner be informed of a steamer from Europe than his brethren in Pittsburgh."³

One hopes that the visitors to the Pittsburgh Telegraphery on that first afternoon observed O'Rielly's handbill: "GENTLEMEN visiting the room merely as *spectators* are assigned ample space, and respectfully requested to OBSERVE THE RULES, as the most *Perfect Order* is desired for the convenience of the Public, as well as for the Telegraphers." For they were witnesses to the

³ *Commercial Journal* (Pittsburgh), Dec. 28, 30, 1846.

dedication of a highway of thought and information. The channelled lightning was to talk to Pittsburghers, and talk for them, of many things: the arrivals of ships, the quotations on sealing-wax; the results of elections, and "all is forgiven" to distant prodigals; orders made and countermanded as prices shifted in distant markets; "joy speeding on the track of sorrow"; assurances of undying love, and the price of calves in Cincinnati.

The speech often stuttered, in these early years. Technically as financially, the telegraph was a precarious enterprise. Builders and operators had to learn empirically. Anson Stager, first clerk in the Pittsburgh office, made the discovery, one afternoon when the tape refused to unroll from the cylinder, that messages could be read by ear; within a few months a half-dozen operators discovered that, independently. There was a tow-headed lad in the Pittsburgh office, a messenger, who was allowed to practice with the key on Sunday evenings; he was alone in the Telegraphery when an important message came through for Thomas A. Scott, division superintendent of the Pennsylvania Railroad. The youngster took the message, slowly tapped it back to Philadelphia for verification, then delivered it to the addressee's residence. Possibly Mr. Scott tipped Andrew Carnegie for the service.⁴

Elated at his linesmen's conquest of the Alleghenies, O'Rielly predicted triumph over "other obstacles" which "the Public Sentiment and the Judicial Tribunals of the Land" would settle. Rival projects were under way; and since possession was a few points better than law, the Atlantic and Ohio lines were hastened toward Erie and toward the Ohio cities. The westward telegraph crossed under the Monongahela in a gutta-percha wrapping, followed the Steubenville pike, on towering masts spanned the Ohio a mile above Steubenville, followed the river road to Bridgeport and Wheeling and thence the National Road to Columbus, where lines diverged to Cleveland and to Cincinnati. From the latter city the line rushed on to New Albany, whence, by November of 1847, telegrams were rowed across to Louisville while O'Rielly's engineers made a series of valiant but inexpert attempts to span this wide expanse of the Ohio. St. Louis newspapers reported on December 22 that "the first streak of lightning passed through the wires yesterday." Two huge masts carried a loop of wire

⁴ *Ibid.*, Dec. 8, 1863; *Pittsburgh Dispatch*, Sept. 22, 1888.

across the Mississippi; and linesmen pressed toward Chicago in the wake of the stock salesmen. A chain of lines along the lakes route joined Chicago and New York; and the states were "fenced in at last." A dash from Louisville for New Orleans, in 1847-1848, was the beginning of a second great circle of O'Rielly lines, which passed through the Gulf states to Savannah and upward to Washington. As a central ganglion of these electric nerves, the Pittsburgh Telegraphery was an increasingly busy place. Commission men, steamboat owners, merchants, were learning the uses of the telegraph. In 1848 some three hundred messages a day—when the flimsy state of the westward lines permitted—were being exchanged between Pittsburgh and Cincinnati.

O'Rielly and the Morse-Kendall group of patentees and promoters had long since severed relations; the Morse group was building competitive lines with the same frenetic haste which characterized the Atlantic and Ohio extensions. In January, 1850, the rival line reached Pittsburgh.⁵ The Morse company's main wire ran from Baltimore to Wheeling by way of Harper's Ferry and Brownsville. A private contractor built a line from Brownsville to Pittsburgh, on the lucrative surmise that the Morse concern would buy it. The wire crossed the Monongahela atop the Smithfield Street bridge, and on trim white-and-gilt poles came into the Morse office in the St. Charles Hotel—where "the citizens and business men of Pittsburgh are respectfully informed . . . these Lines will receive and send messages as cheap as any other Line, and operators and clerks will be found gentlemanly and accommodating." From Pittsburgh this line doubled back toward Wheeling, by way of the Washington turnpike.

With what potency the telegraph was to affect the newspaper industry, editors did not guess; but most of them welcomed the new instrument. As a poetess of the next generation sang,

Little birds sit on the slender lines
 And the news of the world runs under their feet;
 How value rises and how declines,
 How kings with their armies in battle meet—

but in the beginning years the little birds were sometimes (in Illinois and Iowa) flocks of wild pigeons in such number that they

⁵ *Daily Pittsburgh Gazette*, Jan. 9, Feb. 13, 1850.

broke the wires; and the news messages were skeletonized into bare sentences. Only for Presidential or gubernatorial messages—in the democratic days, popular reading matter—did editors usually care to pay for full transcriptions. The telegraph companies had an anti-monopoly regulation, that one party could not use the wires for more than ten minutes at a time. But on special occasions the telegraph system gathered all its strength for news services. In transmitting Polk's message of December, 1848, the O'Rielly lines fought a raging Nature; rainstorms and thunder covered Pennsylvania and the Middle West. Watchmen patrolled the line over Allegheny Mountain and Laurel Hill. A saddled horse stood at the door of every office and every temporary station, to carry installments of the message to the next station in case the line should fail. For some thirty hours operators coaxed the faint current, until the verbose document was completed.

As New York newspapers had combined (in the first Associated Press) to receive European news from ships some hours before the vessels reached harbor, so the Pittsburgh press quickly learned coöperation in the use of the telegraph. An agent in Philadelphia gathered the eastern news and despatched it to one office (the *Commercial Journal*), where it became the common property of the associated papers. This arrangement served until the "big" story of 1850 was "scooped" by one paper. Professor John W. Webster of the Medical College at Cambridge had been in debt to Dr. George Parkman of the preparatory school; and it seemed that, most unacademically, Professor Webster had dissected his colleague and disposed of some of the pieces in the college furnace. Was Webster the victim of a diabolical conspiracy? Or what was Harvard, the Unitarian heresy, the younger generation, coming to? Interest was nationally intense; and the Pittsburgh newspapers printed full accounts (received by mail) of each day's testimony at the trial. At the unexpectedly speedy conviction, the eastern agent despatched a full column to the Pittsburgh papers by telegraph. (There was another newsworthy event the same day; Senator John C. Calhoun died. That news was despatched in seventeen words.) The *Commercial Journal* published an extra edition while the other papers were yet uninformed of the story. The league of Pittsburgh papers split up; and the O'Rielly telegraph lines entered the breach as a news-gathering agency. This

arrangement was maintained until the Associated Press expanded from its seaboard origins into a national agency.

Railroads were slow to recognize the telegraph as a natural, even indispensable, ally. The New York and Erie, in 1851, was first to adopt a telegraph system. In 1853 an Ohio promoter, Jephth H. Wade, persuaded the Ohio and Pennsylvania to subsidize the building of a line along its right of way from Allegheny into central Ohio. (This Wade, blessed with "a peculiar faculty for negotiation," built other lines of railway telegraph in Ohio and Michigan, and was one of the founders of Western Union.) Solomon W. Roberts, chief engineer of the Ohio and Pennsylvania, reported at the close of 1853 that the wire was "good and substantial," and daily becoming more valuable in the miscellaneous business of the railway; but that the human element was the weak part of the machine: "In the beginning some of the operators were deficient in experience, and in a due sense of responsibility. It was not found to be safe to run trains by telegraphic information, and the practice was immediately discontinued. An accident which occurred in the early part of October, when the road was overloaded with work, arose from an incorrect message . . . respecting the detention of an approaching train."⁶

The Pennsylvania Railroad constructed its own line. The division between Pittsburgh and Altoona began operation on January 1, 1855; a year later the line was clicking into Harrisburg, and on April 1, 1856, was completed to Philadelphia. It was strung from the poles on double cross-arms with the glass insulators still familiar. As the railroad's historian stated, the Pennsylvania's telegraph department "was started right, with clear and concise rules for its government."⁷ From its lines and keys graduated the first operators of the Military Telegraph Corps, the voice of the Union armies in the Civil War.

The gilded infant that entered the telegraph field in 1856—the Western Union—adopted the Pennsylvania's wire as a main line in its system. Having in its first year acquired the Lake Erie Telegraph Company—an old O'Rielly line from Pittsburgh to Cleveland and branching, T-wise, to Buffalo and Detroit—Western Union sought an entrance into the East. The Atlantic and Ohio was healthy; the "mysterious yet intellectual click" of its

⁶ *Ibid.*, Jan. 27, March 9, 1854.

⁷ W. B. Wilson, *From the Hudson to the Ohio*, p. 39.

instruments was producing dividends of nine per cent or better, and the management had no notion of selling. Jephtha Wade made a deal with the Pennsylvania to add two wires to its strong cross-bars. The outcome was the Atlantic and Ohio's capitulation; and the O'Rielly line from Pittsburgh to Cincinnati and Louisville was soon a limb of the young Gargantua.

Between the smaller towns of western Pennsylvania telegraph lines were promoted by local subscription. Scattered through the county weeklies of the 1850's are notices of torch-light processions and cannonades of salutation as a line was completed, and such notices as this, which the *Crawford Democrat* first carried on August 4, 1857:

GIRARD AND MEADVILLE TELEGRAPH

Messages sent with promptness and despatch to all parts of the United States and Canada.

A. Battles has, at great expense, extended the line from Girard to this place, and respectfully solicits patronage of the business men and others of Meadville and this vicinity.

All messages regarded as strictly confidential.

So Pittsburgh's enthusiastic welcome of the telegraph was repeated in Erie, Brownsville, Washington, Franklin, Warren. . . . The wonder of the instrument was a pleasurable tidbit for the edacious self-confidence of the generation of the 1850's; as if in response to Lincoln's favorite poem, "Why should the spirit of mortal be proud?" one could recall that among the boasts swirled at Job by the Voice in the whirlwind was the challenge, "Canst thou send lightnings, that they may go and say unto thee, here we are?" And the success of the telegraph, quickening every artery of commerce, lent plausibility to new ideas for improved communications. In 1850, when John A. Roebling wrote a series of newspaper articles on the practicability of a trans-Atlantic cable—four years before Cyrus W. Field had any interest in the project,—the *Pittsburgh Gazette* commented, "Many things which at first seemed preposterous, have proved to be not impracticable, but eminently important and valuable." And Pittsburghers were interested to learn in 1853 that an Atmospheric Telegraph company was about to lay a tube two feet in diameter between New York and Boston, to provide parcels with such winged speed as the magnetic telegraph had dowered upon the spoken word.