Western Union and the Creation of the American Corporate Order, 1845–1893

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AP's dominance of the nation's news. Rates remained so high that only a small part of the population could afford to use the telegraph. The high price of telegraphy gave a communications advantage to large firms over small, to high-traffic urban centers over poorly connected small towns and rural regions. Even with the reconstruction and expansion of Western Union's lines, the network remained fragile and its performance inconsistent. In August 1873, Orton took a train to Irvington to join his family at their summer home. He wired ahead to have his carriage meet him on the 9:00 P.M. express, but the Irvington operator never received the dispatch. Thus the president of the greatest and, by his own frequent testimony to Congress, most reliable telegraph network in the world found himself "obliged to walk home on a very hot night, carrying an overcoat and a traveling bag."[200]

[200] Orton to T. T. Eckert, 7 August 1873, WUC.

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The Specter of Competition

In the years following the Civil War, a building boom in crowded lower Manhattan pushed New York City's skyline to new heights. Except for a few church steeples, an invisible ceiling hovered over the city around five stories, the point at which commercial tenants refused to climb any more stairs. In 1870, the Equitable Life Insurance Building at 120 Broadway became the first office building to employ a passenger elevator, breaking the practical five-story limit with a lucrative sixth floor tucked under a mansard roof.[1] For decades New York's commercial architecture had been limited primarily to rookeries – undistinguished four-story "functional boxes."[2] In the 1870s, a shift toward a grander, taller commercial architecture began. "A liberal expenditure in architecture is a good investment," the New York *Daily Graphic* suggested in a report on new buildings reaching "up to the clouds."[3] The commercial district below Chambers Street teemed with the businesses essential to booming American industry – banks, exchanges, credit agencies, law firms, insurance, and express companies, all requiring proximity to one another and space for their growing ranks of employees.[4]

The "Great Monopoly," which connected New York's business community with the outside world, had outgrown its home. Western Union's

[1] Winston Weisman, "New York and the Problem of the First Skyscraper," *The Journal of the Society of Architectural Historians* 12, no. 1 (1953): 15.
[2] Lee E. Gray, "Type and Building Type: Newspaper/Office Buildings in Nineteenth-Century New York," in *The American Skyscraper: Cultural Histories*, ed. Roberta Moudry (New York: Cambridge University Press, 2005), 86.
[3] "A Telegraph Palace," *New York Daily Graphic*, 3 June 1873.
[4] Edwin G. Burrows and Mike Wallace, *Gotham: A History of New York City to 1898* (New York: Oxford University Press, 1999), 940.

headquarters at 145 Broadway was suitably close to New York's commercial and financial center, but the building could not accommodate the new wires that seemed to sprout almost daily from its upper floors, nor the growing army of operators who tended them. A year before the Panic of 1873 brought the building boom to an end, Western Union announced plans for a stately new headquarters at the corner of Broadway and Dey Street, "one of the most valuable pieces of real estate in the city" – Western Union paid nearly a million dollars for it.[5] The plot was catty-cornered from Park Row, the hub of the newspaper business, and just blocks north of Wall Street. Even the nearby New York Post Office, a hulking Second Empire building four blocks around and nicknamed "the whale,"[6] was half the proposed height of Western Union's headquarters, one of the world's first skyscrapers.[7]

In July 1872, Western Union's directors selected the relatively inexperienced architect George Post to design their new headquarters. President William Orton had called for an eight-story building – then a dazzling height – to house a business that had more than doubled in message volume in the preceding six years.[8] But Post, whom architect Daniel Burnham later called "the father of the tall building in New York," proposed a ten-story design. At 230 feet the building would be four times taller than the typical commercial rookery and second only to Trinity Church – though by some accounts the weather vane actually topped Trinity's spire.[9]

[5] William Orton to James Park, 20 March 1872, WUC.

[6] Lawrence Wodehouse, "Alfred B. Mullett and His French Style Government Buildings," *The Journal of the Society of Architectural Historians* 31, no. 1 (1972): 33; Wallace, *Gotham: A History of New York City to 1898*, 942.

[7] Thomas Bender and William R. Taylor have described an "aesthetic tension" in the development of vertical New York, discovering a distinction between "civic horizontalism" and "corporate verticality." The Post Office and Western Union building are suggestive of this counterpoint, though it is worth adding that critics of the Post Office building were angry about the way in which it overshadowed City Hall – a monument to the primacy of federal government over municipal government. See Thomas Bender and William R. Taylor, "Culture and Architecture: Some Aesthetic Tensions in the Shaping of the Modern New York City," in *Visions of the Modern City: Essays in History, Art and Literature*, ed. William Sharpe and Leonard Wallock (Baltimore: The Johns Hopkins University Press, 1987), 216. The question of which is the world's first true skyscraper cannot be answered because "skyscraper" has a variable definition, but Winston Weisman made a strong case for the Western Union building in his review of the problem. Weisman, "Problem of the First Skyscraper."

[8] William Orton, Memo, 10 April 1872, WUC.

[9] Sarah Bradford Landau, *George B. Post, Architect: Picturesque Designer and Determined Realist* (New York, N.Y.: Monacelli Press, 1998), 15, 31; Winston Weisman, "The

The Western Union building testified to the company's sense of its place at the center of the nation's commerce, and set a new standard for commercial architecture. The brick and granite façade rose to an ornate iron-railed balcony above the seventh floor; grand arcaded windows at the eighth floor; a lofty, dormered mansard roof on the ninth and tenth floors; and a clock tower and flagpole that soared skyward. Many of the apparently ornamental flourishes served telegraphic functions. The iron balcony railing anchored the hundreds of wires that fed into the operators' room. The huge eighth-floor windows provided natural light for the telegraphers. Iron trusses supported the mansard roof, leaving the operating room free from columns to create a vast attic for the employees' dining room and, most importantly, providing space for the batteries that gave life to the telegraph. The building had three elevators, steam heat, and a novel fire-fighting system with dedicated wells. Post designed the entire structure to be "fireproof."[10]

It was an imposing edifice for the "Great Monopoly," but although the enormous building evinced invulnerability (one critical historian called it a "bomb-proof citadel"), it concealed several significant problems.[11] Construction had been plagued with delays and minor disasters, many resulting from the building's massive size. The Rhode Island quarry providing most of the stone could not keep up with the order, and Post accused the firm of using the sheds intended for the Western Union job to cut stone for the State, War and Navy Building (known today as the Old Executive Office Building) in Washington instead.[12] The Western Union building's three-ton doorway lintel stone broke its tackle and sank the boat on which it was being loaded, and the nine-ton cornice piece was so enormous that it could not be shipped by regular steamer.[13] Mounting costs exhausted the building budget and the banking panic of 1873 nearly stopped construction altogether.[14] The press harped on the cost

Commercial Architecture of George B. Post," *The Journal of the Society of Architectural Historians* 31, no. 3 (1972): 181. *Journal of the Telegraph*, 15 February 1875.

[10] George Post to Alonzo Cornell, 8 April 1874, George Post Papers; Sarah Bradford Landau and Carl W. Condit, *Rise of the New York Skyscraper, 1865–1913* (New Haven, Conn.: Yale University Press, 1996), 79–81.

[11] Matthew Josephson, *The Robber Barons; the Great American Capitalists, 1861–1901* (New York,: Harcourt Brace and Company, 1934), 207.

[12] The building is today the Old Executive Office Building and was designed by Alfred B. Mullett, who was Supervising Architect for the federal government. Andrews to F. Merry, 26 May 1873, George Post Papers.

[13] Andrews to George Post, 13 May 1873, George Post Papers; Andrews to George Post, 20 June 1873, George Post Papers.

[14] Orton to Post, 27 October 1873, George Post Papers.

overruns to Post's great embarrassment. Western Union's lease on 145 Broadway expired early in 1874, and for more than a year the company faced eviction as construction dragged on. The "grand Hegira" to 195 Broadway – a move that required rewiring every telegraph pole in Lower Manhattan – did not begin until February 1875.[15] Even once occupied, the building lacked several finishing touches.[16] Granite piers above the portico intended for bronze statues of Benjamin Franklin and Samuel Morse remained empty.[17] The iron flagstaff atop the tower swayed so much in the wind that Post feared it would "not hold the Vane, much less a flag" [18] More than three years later, the building's great clock remained unfinished.[19] Yet the New York *Tribune* dubbed the Western Union building the "telegraphic heart of America."[20]

Within a short walk of Western Union's monument to its own dominance, at least half a dozen companies vied for a share of the American telegraph market. The "monopoly" label clung stubbornly to Western Union, and the company struggled with what had become its essential contradiction. On the one hand, Western Union managers insisted that the company controlled *only* 90 percent of the nation's telegraph system, an active opposition competed in an open market, and any abuse or gouging of the public would only hasten competition. On the other hand, they argued that the public would be better served if Western Union *were* a monopoly, that only a single telegraph company could efficiently and profitably perform the nation's business. Orton believed that low rates and quality service would "sugar coat" such a monopoly. The

[15] "Removal of the Western Union Office to the New Building," *The Telegrapher*, 30 January 1875, 29.

[16] Post to Orton, 18 March 1875, George Post Papers.

[17] Landau reports the statues were installed, but he apparently bases his assertion on a print produced by Western Union. *The Journal of the Telegraph* published the same image in February 1875 and noted that despite the artist's inclusion of the statues, their erection was a matter of "contemplation" and alternatives were under consideration. Following Orton's death in 1878 a proposal for Morse and Orton statues for "the niches in front" of the headquarters was suggested and declined. See *Journal of the Telegraph*, 15 February 1875; Meeting of the Executive Committee, 29 May 1878; WUC; Landau and Condit, *Rise of the New York Skyscraper, 1865–1913*, 81; Diana Balmori, "George B. Post: The Process of Design and the New American Architectural Office (1886–1913)," *The Journal of the Society of Architectural Historians* 46, no. 4 (1987): 343.

[18] J. B. Cornell to George B. Post, 31 October 1874, George Post Papers.

[19] Meeting of the Executive Committee, 20 November 1878, WUC. Despite the problems with the building, it launched George Post's career as a commercial architect, and Balmori notes, won him several major commissions from Vanderbilt and members of Western Union's board of directors. See Balmori, "George B. Post," 355.

[20] "The New Telegraphic Heart of America," *New York Tribune*, 1 February 1875, 12.

public would not "be frightened" and would accept monopoly without "wincing" if Western Union did the work better and more cheaply than competitors.[21] Persistent competition, Western Union managers insisted, was only so much waste.

In the abstract, there *could* have been legitimate competition in telegraphy in the 1870s. The actual state of competition, however, was less rosy. Through the construction of barriers to entry and the liberal use of predatory pricing, Western Union created conditions that made genuine competition virtually impossible. In the end, this strategy rebounded against the "Great Monopoly" in an unexpected way. Legitimate competitors were unlikely to prove a mortal threat to a company with such a commanding market position. Illegitimate competitors, however, created solely as mechanisms to extract wealth from investors and Western Union itself, were less predictable and ultimately more dangerous. Preventing such illegitimate competitors from fomenting "an indefinite state of warfare" proved beyond even Western Union's power.[22] It was this warfare, warfare waged not through the simple push and pull of supply and demand for telegraph service but with the mechanisms of the market itself, that nearly ruined Western Union.

None of the competing telegraph companies in the early 1870s could challenge Western Union individually, so the operators' advocacy newspaper *The Telegrapher* proposed the same solution that Western Union and its rivals embraced in the 1850s – cartelization. "Common Sense at Last," *The Telegrapher* declared in response to an 1871 agreement between Western Union opponents, the Pacific & Atlantic, Franklin, and Bankers' & Brokers' Companies, to consolidate their interests. Western Union would have a "more serious antagonist" than when each company was "fighting on its own hook."[23] But *The Telegrapher* also acknowledged that the opposition lines had thus far been mostly fraudulent ventures run by speculators and contractors who, "relying upon the known antagonism of the public to a telegraphic monopoly," repeatedly "reaped the harvest" of foolhardy investors.[24] The "common

[21] William Orton to George B. Prescott, 21 September 1876, WUC.

[22] Schumpeter argued that oligopolistic industries can only achieve equilibrium with great difficulty and are more likely to inspire perpetual warfare and struggles for control that generate "social waste." See Joseph A. Schumpeter, *Capitalism, Socialism and Democracy* (New York: Harper & Brothers, 1942), 79–80.

[23] "Common Sense at Last," editorial, *The Telegrapher*, 7 January 1871, 156.

[24] "The Policy of the Competing Telegraph Companies," editorial, *The Telegrapher*, 29 April 1871, 281.

sense" combination of opposition firms proved short lived. Tariffs in areas of competition remained perilously low because Western Union imposed ruinous "starvation rates."[25] Publicly Orton denied predatory pricing, but he admitted that when competitors attacked with lower rates, Western Union responded with even deeper cuts.[26] Deprived of "fair remuneration for service," the united competitors burned through their cash and piled up debt.[27] Less than a year after joining the opposition cartel, bankruptcy forced the Bankers' & Brokers' to lease its property to Western Union.[28]

The Atlantic & Pacific (A&P) and Pacific & Atlantic (P&A) presented a more substantial threat.[29] To discourage its rivals from consolidating and to avert a costly rate war, Western Union offered a "cessation of hostilities" and resumption of "fair rates"[30] and managers considered buying one or both firms. However, the Union Pacific owned a controlling stake in the A&P and Orton feared the railroad would coerce Western Union into overpaying.[31] Here Western Union's connection with the Vanderbilt clique proved useful. The ascension of Horace Clark, Vanderbilt's son-in-law and a Western Union director, to the presidency of the Union Pacific promised to smooth relations between the Union Pacific and Western Union until the "time was ripe" for consolidation.[32]

The P&A presented a more attractive takeover target. Orton publicly denied he had any interest in buying the P&A, but privately he advised friendly investors that P&A stock was "a fair risk to take."[33] In fact, the fix was already in. Orton and Horace Clark had cultivated a party of P&A shareholders who exchanged their stock for shares in Western Union.[34] Andrew Carnegie, an empire builder to rival Vanderbilt, led the

[25] "Fifth Annual Report of the Pacific and Atlantic Telegraph Co.," 2 May 1871, WUC.
[26] *Argument of William Orton*, 31.
[27] "Sixth Annual Report of the Pacific and Atlantic Telegraph Co.," 7 May 1872, WUC, William Orton to D. C. Littlejohn, 22 December 1871, WUC.
[28] "Failure of the Combination of Telegraph Companies, 7 October 1871, *The Telegrapher*, 52.
[29] Atlantic and Pacific Telegraph Company Executive Committee Minutes, 22 March 1871, WUC.
[30] "Sixth Annual Report of the Pacific and Atlantic Telegraph Co.," 7 May 1872, WUC.
[31] William Orton to Anson Stager, 7 February 1872, WUC.
[32] William Orton to Anson Stager, 15 June 1872, WUC.
[33] William Orton to R. C. Clowry, 10 October 1872, WUC; William Orton to Luther L. Kauffman, 29 April 1873, WUC.
[34] Thurston testified in Congress that P&A shares were not on the general market. "Proceedings of the Committee on Appropriations," 28 January 1873, 42nd Congress, 3rd Session, Misc. Doc. No. 73, 6.

inside party. He cashed in his own shares along with those of Pennsylvania Railroad principals J. Edgar Thomson and Tom Scott. Nearly worthless P&A stock was thus "transmogrified" into valuable Western Union shares in a deal that a Carnegie biographer called "crony capitalism at its most basic."[35] By the spring of 1873, the conspirators controlled enough of the P&A to appoint new officers and turn the company over to Western Union, "demoralizing" the rest of the opposition and denying the A&P a valuable partner.[36] In short order Orton had contained or subverted all of Western Union's legitimate competition.

But the plan was almost immediately complicated by events. Orton's co-conspirator Horace Clark died suddenly, and Orton learned that the P&A's condition was far worse – in terms of both debt and the quality of its lines – than insiders had led him to believe. The P&A's officers had meanwhile skimmed $80,000 in commissions from the sale of their stock to Western Union, and infuriated shareholders excluded from the ring's bargain with Western Union demanded the same deal. Carnegie raised the stakes from cronyism to extortion, warning Orton that if Western Union did not extend the offer to exchange the stock of all of the P&A's directors at a still higher price, the P&A would scuttle the deal by watering its stock with a million new shares and cutting rates by 25 percent. Western Union's board of directors learned of the conspiracy and halted the exchange of P&A stock for Western Union shares. Orton called Carnegie's bluff by offering only a 5 percent lease for outstanding P&A shares. Carnegie folded, turning the P&A over to Western Union.[37]

Carnegie's stalling proved costly for P&A shareholders not on the "inside." The Panic of 1873 struck financial markets in September, and Orton decreed that since "the shares of the most reliable corporations in the country" were "so greatly depressed," his company would lease the P&A for 20 percent less than previously offered, with all rental payments going first to pay the P&A's substantial debt.[38] The P&A's officers appealed to

[35] See Chapter 4 for discussion of how Carnegie built the Pacific & Atlantic with virtually none of his own capital. See David Nasaw, *Andrew Carnegie* (New York: The Penguin Press, 2006), 107–8.
[36] William Orton to Anson Stager, 3 May 1873, WUC; Western Union Executive Committee Minutes, 10 September 1873, WUC.
[37] Andrew Carnegie to William Orton, 19 June 1873, WUC; William Orton to Andrew Carnegie, 7 August 1873, WUC; Andrew Carnegie to William Orton, 10 August 1873, WUC.
[38] William Orton to W. G. Johnston, 12 November 1873, WUC; Western Union Annual Report, 14 October 1874, WUC.

shareholders to assent to the deal, admitting that the company had never been profitable and stock sales had been used to pay dividends. Because debt liens would otherwise render their property worthless, shareholders approved the lease.[39] Orton closed the P&A's unprofitable offices, and though Western Union retained many of the company's operators, at least some were laid off,[40] including a relative of South Carolina's U.S. Senator John J. Patterson – an error that Orton promised the senator he would correct with the "first suitable vacancy."[41]

The P&A's angry minority shareholders could not stop the merger. The rules of corporate governance gave no power to minority shareholders, and the courts set a high bar for shareholder claims that their property had been fraudulently expropriated.[42] Their last hope was that the state of Pennsylvania, where the P&A had its charter, would intercede against the merger. The new Pennsylvania constitution, one of a wave of state constitutions rewritten after the Civil War, included an antimonopoly provision that prohibited any telegraph company from merging or leasing its property to any other telegraph company.[43] Orton dismissed this clause as an absurd overreaching of state power akin to a constitutional repeal of "the laws of gravitation." Children would keep falling down stairs and failing telegraph companies would keep consolidating – "constitution and laws to the contrary notwithstanding." Despite a shareholder suit intended to delay, the P&A lease took effect before the state ratified the new constitution, averting a test of the law.[44]

Even on such advantageous terms, the P&A was a "bad bargain" for Western Union. The P&A's lines were almost entirely redundant and were in poor condition besides. The true aim for taking in such a weak competitor was to deprive the more threatening Atlantic & Pacific of "feeders"

39 William G. Johnston, "To the Stockholders of the Pacific and Atlantic Telegraph Company," 1 December 1873, WUC.

40 William Orton to David McCargo, 25 July 1873, WUC.

41 William Orton to Senator John J. Patterson, 26 February 1874, WUC.

42 Naomi Lamoreaux and Jean-Laurent Rosenthal have written about the "plight of minority shareholders." Under corporate governance rules, minority shareholders could do little to prevent their property from expropriation; courts set a very high bar for minority shareholders to prove they had been defrauded. See Naomi R. Lamoreaux and Jean-Laurent Rosenthal, "Corporate Governance and the Plight of Minority Shareholders in the United States before the Great Depression," in *Corruption and Reform: Lessons from America's Economic History*, ed. Edward L. Glaeser and Claudia Goldin (Chicago: University of Chicago Press, 2006).

43 Morton Keller, *Affairs of State: Public Life in Late Nineteenth Century America* (Cambridge, Mass.: Belknap Press of Harvard University Press, 1977), 111.

44 William Orton to W. G. Johnston, 5 December 1873, WUC.

beyond its meager territory. "Cutting off" potential allies prevented the A&P from creating a cooperative rival to Western Union's own extensive network, forcing the A&P to provide only limited service or else invest in building lines in new territory.[45] Economic conditions increased Western Union's advantage over struggling rivals. The Panic of 1873 marked the beginning of a depression that lasted until 1879 – the longest in the nation's history to date. In what was called the "Great Depression" (until the greater depression of the 1930s), thirty thousand firms failed in the first four years.[46] For a firm like the Atlantic & Pacific Telegraph, raising funds for expansion by selling stock became significantly more challenging. The failure of the P&A and the hard bargain Western Union drove for its shareholders made speculative telegraph stock still less attractive. The A&P placed its stock on the market only by offering it at a cut-rate price of fifteen cents on the dollar.[47]

By late 1874 Western Union once again verged on a complete monopoly of the telegraph industry. In June the company restored its semiannual dividend – suspended since 1870 – despite rising costs and the deepening depression. Cornelius Vanderbilt, who had denied that he owned Western Union, placed himself and his son William on the Board of Directors, and the Commodore joined the Executive Committee in place of his deceased son-in-law, Horace Clark. Western Union had become undeniably a Vanderbilt enterprise. At the same time, the Atlantic & Pacific Telegraph Company passed into the hands of another industrial titan, Vanderbilt rival Jay Gould. Just when competition in the telegraph industry appeared to be doomed, Gould pressed the contest in new directions in an "antimonopoly" crusade that forced Western Union to defend its business from a far more complex attack than traditional rate wars.

Western Union's strategy of isolating and starving competitors by cutting off their connections to other networks required the "Great Monopoly" to dominate more than simple person-to-person telegraphy. In growth areas

45 William Orton to Edward Jay Allen, 7 March 1874, WUC; William Orton to Anson Stager, 27 November 1869, WUC; William Orton to Anson Stager, 20 August 1869, WUC; William Orton to J. D. Caton, 17 October 1872, WUC; Joseph Frazier Wall, *Andrew Carnegie* (New York: Oxford University Press, 1970), 221.

46 Jerry Markham, *A Financial History of the United States: From Christopher Columbus to the Robber Barons, 1492–1900*, 2 vols., vol. 1 (Armonk, N.Y.: M. E. Sharpe, 200), 296.

47 William Orton to Anson Stager, 13 December 1873, WUC.

such as ocean cables, commercial news, and urban telegraphy Western Union sought not only to increase receipts, but also to keep potential competitors from gaining a foothold. In the business warfare of the first great tech boom, the threat of competition came not only from direct contests between existing technologies, but also from new technologies that advanced and disrupted the state of the art.

Commercial ocean cables had been in almost continuous operation since the opening of the Atlantic cable in 1866. Western Union did not own ocean cables, opting instead to control the cables' domestic feeder lines. This arrangement gave Western Union a practical monopoly on European telegraphic communication until 1869, when the French Cable Company landed a new cable in Duxbury, Massachusetts.[48] In deference to its partner, the Anglo-American Cable Company, Western Union declined to contract with the competing French Company, which forged an agreement with the Franklin Company instead. Like all the ocean lines, the French Company's single gutta-percha cable was finicky and subject to regular outages. Its domestic connection to the rickety Franklin likewise appeared certain to fail on "the first wet day." The French government added an intolerable delay by detaining all messages for official review, cutting the cable's effective volume in half.[49] Despite the drawbacks of the French cable, Western Union managers feared a cable rate war loomed, threatening the share Western Union took for the domestic transfer of cable dispatches. Orton proposed a cartel, now the universal solution for protecting telegraph investments. The Anglo-American and French Cable Companies would cooperate, divide their receipts, and hand *all* domestic cable traffic to Western Union.[50] The "practical consolidation" of the two cable companies restored high cable rates and Western Union's exclusive connection to the cartel "exerted a depressing influence" on domestic competitors.[51]

Yet the cable business remained a risky enterprise. Frequent outages offset the benefits of high rates. The French cable developed a fault at its Eastern end that reduced transmissions to a trickle. When one English cable failed in late 1870, the steamer sent to grapple for the damaged cable accidentally snagged the working cable and broke it, leaving the

[48] F. L. P., "The General Telegraph Office of the Western Union Company in New-York City," *The Telegrapher*, 15 July 1867, 249.
[49] William Orton to Anson Stager, 26 July 1869, WUC.
[50] William Orton to Hugh Allan, 10 November 1869, WUC.
[51] William Orton to Z. G. Simmons, 16 February 1870, WUC; William Orton to Peter Cooper, 16 March 1870, WUC; William Orton to Anson Stager, 20 November 1869, WUC.

continents without any telegraph communication for several days.[52] Two of the three cables failed again in 1873, just as the French Cable Company completed a fourth cable that immediately joined the consortium.[53] No competitor emerged to challenge the Atlantic cable cartel until the United States Direct Cable Company opened its long-delayed "independent" line between England and America in the summer of 1875.[54]

The opening of the Direct Cable illustrated how the cable consortium, for all the advantages the monopoly gave Western Union, also posed a certain danger. Ocean telegraph cables were widely perceived as hallmarks of civilization's progress serving the greater good of humanity, fragile threads knitting together Old World and New. Western Union acknowledged the cable's special purpose in appealing to the federal government for a variety of tariff exemptions, arguing that governments had "a larger interest in the maintenance of telegraphic communication than that of the parties who provide the capital."[55] However, such appeals to the greater good cut both ways. Critics charged the cable monopoly with exacting excessive rates and linked Western Union to the extortion, though Western Union had no direct control over cable rates.[56]

The London-based Anglo-American Telegraph Company felt none of the pressure that the American press and elected officials applied to Western Union. Shortly after the competing Direct Cable opened in 1875 and forced cable rates down from fifty cents per word to twenty-five, a technical failure knocked it out of operation. The Anglo-American Telegraph Company seized the advantage by quadrupling its rate to one dollar per word, and the American press howled at the "extortionate and oppressive rate." The Chicago *Tribune* went so far as to suggest that British government officials, "skilled in telegraphic affairs," should nationalize the ocean wires as they had their domestic telegraph.[57] Commercial exchanges and boards of trade held meetings to plot against the cable monopoly, and Orton feared a backlash that would "inevitably hit and hurt Western Union."[58] Orton demanded the Anglo-American Telegraph Company offer a lower rate and consolidate with the Direct

[52] William Orton to Anson Stager et al, 30 November 1870, WUC.
[53] William Orton to Henry Weaver, 20 January 1873, WUC.
[54] William Orton to Henry Weaver, 16 July 1875, WUC.
[55] William Orton to W. A. Richardson, 21 April 1873, WUC.
[56] William Orton to Hamilton Fish, 21 June 1873, WUC.
[57] "First Fruits of the Cable Monopoly," *Chicago Daily Tribune*, 2 October 1875, 8.
[58] William Orton to Henry Weaver, 1 October 1875, WUC.

Cable, but the battle between the cable companies dragged on for two more years and only telegraph consolidation in the New World finally forced a settlement.

In addition to the Atlantic, Western Union also dominated telegraph access to Cuba and the West Indies, and through them to South America. The International Ocean Telegraph Company landed a Cuba cable in Key West and established an exclusive connection with Western Union. A message from Havana to London initially cost $50, gradually declining to below $20 by the 1870s.[59] The two companies maintained a loose alliance until 1871, when the International Ocean was rumored to be planning an Atlantic cable from Spain to North America, competing with the Anglo-American consortium. Orton warned that competition in the telegraph business "invariably" led to "loss to all"[60] and convinced managers of International Ocean to a join the monopoly and move their offices into the Western Union building. By 1873 Western Union had purchased enough International Ocean stock to control the company and negotiate a pooling arrangement with its chief competitor in the West Indies, the Cuba Submarine Telegraph Company. In place of potentially costly competition, Western Union had once again established an "intimate, cordial, and satisfactory" combination.[61]

The celerity of the telegraph was useful to any two parties exchanging messages, but market news was by far the most valuable and time-sensitive information on the wires. In the postal telegraph debate before Congress, Orton dismissed "social messaging" as an insignificant duty for the telegraph. "The fact is, the telegraph lives upon commerce," Orton claimed. "It is the nervous system of the commercial system."[62] This was not an idle boast.[63] U.S. Chief Justice Morris Remnick Waite noted in an 1877 opinion that the telegraph had "changed the habits of business, and become one of the necessities of commerce."[64] The "necessity"

[59] William Orton to W. T. Smith, 12 March 1869, WUC.
[60] William Orton to W. T. Smith, 20 May 1871, WUC.
[61] William Orton to Thomas Hughes, 26 November 1873, WUC.
[62] *Argument of William Orton*, 24.
[63] In a pair of articles, Richard DuBoff argued that the telegraph contributed significantly to the centralization of markets and encouraged the development of oligopolies. See Richard B. DuBoff, "The Telegraph and the Structure of Markets in the United States, 1845–1890," *Research in Economic History* 8 (1983); Richard B. DuBoff, "The Telegraph in Nineteenth-Century America: Technology and Monopoly," *Comparative Studies in Society and History* 26, no. 4 (1984).
[64] *Pensacola Tel. Co. v. Western Union Tel. Co.*, 96 U.S. 1 (1877), 9.

of commercial telegraphy was partially self-fulfilling – once one firm employed the telegraph, its competitors had little choice but to follow suit.[65] But the telegraph had a profound effect on business by centralizing markets and control, evenly distributing price data, and altering the work flow in several industries, particularly those in which time-sensitive information about assets and inventories had great value, such as meatpacking. The seven major commodities exchanges in the United States sprang up after the invention of the telegraph and were wholly dependent upon the technology.[66]

The new "necessity" of telegraph market news made such business very lucrative. The commercial market bore high rates because current market information had a value much greater than the tariffs charged. Commercial news also generated return traffic in the form of market orders.[67] The Associated Press (AP) leapt into the commercial news business, filling approximately half of its daily digest to the West with Eastern market reports and price quotations.[68] Western Union formed its own Commercial News Department for gathering and disseminating market reports, though this proved a risky endeavor. Routine errors in telegraph transmission could cost the recipient thousands of dollars if the mistake involved price data or a transaction order, and no legal standard protected the telegraph company from liability for the entire loss. In the absence of any "successful defense" against proven damages, Orton even contemplated shutting down the company's Commercial News Department.[69]

Commercial news generated such bumper profits that many independent sellers entered the business, only to find themselves muscled out by Western Union.[70] With exclusive access to the Atlantic cable, Western Union controlled the release of European market news in the United

[65] Alexander Field has pointed out that this created a paradox: "Beyond a certain point, the social value of more rapid access to data at a distance from exchanges may not have matched the private value individuals attached to it." See Alexander James Field, "The Magnetic Telegraph, Price and Quantity Data, and the New Management of Capital," *The Journal of Economic History* 52, no. 2 (1992): 404.
[66] DuBoff, "Technology and Monopoly," 574; Field, 410.
[67] Gregory J. Downey, *Telegraph Messenger Boys: Labor, Communication and Technology, 1850–1950* (New York: Routledge, 2002), 85.
[68] Menahem Blondheim, *News over the Wires: The Telegraph and the Flow of Public Information in America, 1844–1897* (Cambridge, Mass.: Harvard University Press, 1994), 173.
[69] William Orton to John Van Horne, 26 November 1869, WUC.
[70] James D. Reid, *The Telegraph in America: Its Founders, Promoters, and Noted Men*, 1st ed. (New York: Derby Brothers, 1879), 610.

States. As a matter of protocol, the company began transmitting to all its commercial subscribers in the United States one or two minutes *before* releasing the same information in New York. Any potential competitor hoping to sell European market news in Chicago would thus receive it in New York at about the same time that Western Union customers were already receiving it in Chicago. Orton bragged that with such a system, no one could "expect to compete successfully."[71] Though critics accused Western Union of conspiring to "keep back" competing commercial dispatches, there was no conspiracy – Western Union's dispatch, sent first and with priority, won the race to market every time.

Defeated competitors railed against the commercial news monopoly, but Western Union's system probably reduced fraud. Before Western Union drove private providers out of business, its lines carried dozens of redundant reports filed by private correspondents. Because the value of reports depended upon their timeliness, correspondents sought to place their reports first at all costs. This contest created another kind of market: agents competed to bribe or conspire with operators "to put their messages ahead, and thus give one an advantage over another." Managers found such employee corruption exceedingly difficult to curtail. The possibilities for selling privileged information seemed endless: accepting bribes to send dispatches in an order favorable to a particular party, selling private commercial reports to third parties, various types of "eavesdropping," bribing delivery boys, even transmitting deliberately bogus reports. Although managers diligently investigated accusations and employed Allan Pinkerton and his detectives on several cases, enforcement could not solve the problem. Instead, the Commercial News Department eliminated the incentive to steal by replacing private reports with a monopoly Western Union report. This great "bugbear," as Orton insisted, instead of "endangering the public interests," was really "a means for their protection."[72]

Competing with Western Union in commercial news by conventional means was impossible, so the great value of commercial news encouraged competitors to innovate and challenge the monopoly indirectly with new technology. In 1867, the Gold & Stock Telegraph Company began transmitting stock quotations and gold prices from the New York Stock Exchange and the Gold Exchange. The Gold & Stock had no capacity to reach beyond New York, but its intraurban business thrived, and it

[71] William Orton to Anson Stager, 2 April 1868, WUC.
[72] *Argument of William Orton*, 13–14.

controlled several patents on an efficient "printing" telegraph, better known as a "stock ticker." The ticker used a pair of wheels – one for abbreviated names and one for prices – to print quotes on a spooled tape. Stock and gold prices were automatically available in any office in New York that purchased a subscription. By 1871 Gold & Stock had more than seven hundred subscribers and threatened to expand its business to other commercial centers, or worse, to join the arsenal of an opposition company.[73]

Orton believed that the transmission of stock and gold prices by automatic instruments was potentially the most lucrative franchise in all telegraphy.[74] In 1870, he forged a tentative agreement with the Gold & Stock to assist in its expansion to Chicago, where businessmen clamored for automatic quotations. He hoped to control Gold & Stock and pool its patents with Western Union's without consolidating the two companies. If the government implemented one of the postal telegraph schemes, Western Union could stay in the business of "private telegraphing" for manufacturers, counting rooms, offices, and exchanges.[75] The potential profitability of a joint monopoly on price tickers, combined with Western Union's interurban reach, led Gold & Stock's directors to sell enough stock to give Western Union control of their company. Gold & Stock continued transmitting stock quotations and took over the provision of private telegraph lines from Western Union. After a decade of partial ownership, Western Union absorbed Gold & Stock in 1881 with a lease that rewarded Gold & Stock's compliant shareholders just as its patents – its principal asset – began to expire.[76]

Western Union also developed interests in intraurban "automatic" telegraphy. The technology for sending and receiving messages without the aid of an operator was in its infancy, but automatic systems requiring only limited or one-way communication came into use in the 1870s in police and fire alarms and messenger call systems. "Call boxes" installed anywhere in a city could transmit simple, automated messages to a central office, identifying by code the location from which the message had been sent and the service required by the sender. For example, a messenger boy could be dispatched to the site of a call box to pick up a message

[73] Joel A. Tarr, "The City and the Telegraph: Urban Telecommunications in the Pre-Telephone Era," *Journal of Urban History* 14, no. 1 (1987): 44; Reid, *The Telegraph in America*, 611.
[74] William Orton to Anson Stager, 12 November 1870, WUC.
[75] William Orton to Anson Stager, 24 January 1871, WUC.
[76] Norvin Green to George W. Nash, 8 December 1881, WUC.

for transfer to the telegraph office. Call boxes did not allow discourse between sender and recipient, but they had great commercial promise for simple purposes. The entrepreneurs who founded the Gold & Stock Company formed the American District Telegraph and opened a call box system in New York in 1872. Western Union affiliated with A.D.T. for its messenger service, and the business grew to 4,500 subscribers by 1878. By 1885, district messenger companies in New York, including both A.D.T. and its competitors, had nearly 30,000 subscribers.[77]

No part of Western Union's business demanded more diligent protection from competition than railroad telegraphy. Railroad telegraph lines were both a logistical necessity and a bulwark against rivals. Railroad companies constructed and maintained telegraph lines along their rights-of-way, provided Western Union with free office space and, at thousands of points with low message volume, employed station agents who doubled as telegraph operators. By the 1880s, 90 percent of Western Union's lines were on railroad routes, and the railroads maintained 10,000 telegraph offices in exchange for free service on Western Union's network. Railroad relationships created the possibility for ubiquity at a reasonable price – Western Union paid salaries and rent at fewer than a quarter of its offices.[78]

Even more important than sharing costs, railroad partnerships blocked competitors from accessing interurban rights-of-way. Western Union usually required railroads to agree to exclusive contracts, an undisguised method of monopolizing important routes. However, Orton feared that the exclusive clause could not stand up against state laws – whenever a state authorized a general law for condemning railroad rights-of-way to encourage competition, Western Union's exclusive was likely doomed. By 1874, a few states had enacted such laws, though Orton believed "little benefit" had accrued to competitors. In a few cases, Orton planned to fill the side of the track opposite Western Union's lines with extra short lines that would block condemnation by a competitor. Competitors challenged the legality of Western Union's "closed" railroad contracts. Though the Telegraph Act of 1866 gave any telegraph company the right to build on any "post road," the meaning of that clause was not clearly defined

77 James D. Reid, *The Telegraph in America: Its Founders, Promoters, and Noted Men* (New York: Arno Press, 1974), 635. Tarr, "Urban Telegraph," 50.

78 James D. Reid, *The Telegraph in America and Morse Memorial*, 2d ed. (New York: John Polhemus, 1884), 748.

until federal postal legislation in 1872 defined "all railways and *parts* of railways" as post roads.[79] Nonetheless, declaring railroad rights-of-way to be post roads did not determine whether the right of telegraph companies to use post roads required the railroads' consent – a subject the Act did not address.[80]

Orton hoped that the Telegraph Act of 1866 could work to Western Union's advantage by giving the company access to every railroad in the country without consent or payment, forever eliminating "the obligation" to pay "an enormous sum of free telegraphing" in exchange for rights-of-way.[81] Western Union could instead maintain its competitive advantage by forging less expensive exclusive transportation and construction agreements with the railroads.[82] Rather than require exclusive access to the right-of-way, Western Union demanded the exclusive right to occupy railroad depots and receive special rates for transportation of poles, wires, and other materials. The simplest and least expensive method for constructing a durable telegraph line of cedar poles was for the railroad to run a special slow train and toss the poles from a freight car at marked positions. Keeping competitors off the trains effectively precluded them from constructing lines even if they had a right-of-way. To further discourage railroad companies from cooperating with the opposition, Western Union often inserted an extra clause allowing it to cease providing free telegraph service to the railroad once a competitor was established on the line.[83]

Yet exclusive construction agreements could not prevent the railroad companies themselves from trying to enter the telegraph business, a grave competitive risk. As early as the 1850s, Western Union managers feared that railroads could operate their own telegraph lines, but the relatively limited extent of most roads in the 1870s kept individual railroads from performing extensive commercial telegraph service.[84] Railroads were

79 Statutes at Large, 17 Stat. 308, sect. 201; Revised Statues, sect. 3694. Approved June 8, 1872. Emphasis added.

80 Anonymous note, *Michigan Law Review* 3, no. 6 (April 1905), 467–8.

81 William Orton to U. H. Painter, 26 January 1872, WUC.

82 The consent-free right-of-way remained a sort of Holy Grail for Western Union, but it would never be attained. In the 1905 decision *Western Union Co. v. Pennsylvania Railroad Co.* (25 Sup. Ct. Rep 133) the court determined finally that telegraph companies had no right to operate on railroads without their consent, tilting the balance of power in the relationship between railroads and telegraphs strongly in favor of railroads.

83 William Orton to H. P. Dwight, 23 February 1874, WUC.

84 Hiram Sibley to John Dean Caton, 8 January 1860, Caton Papers; Chandler, *The Visible Hand*, Chapter 5.