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News in Lights
The Times Square Zipper and Newspaper Signs in an Age of Technological Enthusiasm

When Herbert Hoover was elected president of the United States on November 6, 1928, thousands of New Yorkers learned the news from the New York Times’s new electric light display on Times Tower. The Times had barely installed the moving-letter sign in time for election-night crowds, which had habitually gathered to learn of election results and other breaking news since the newspaper had relocated to Times Square from Park Row in 1905. A “ribbon of light” 380 feet long and five feet high, the sign circled Times Tower along the building’s fourth-floor cornice. The Times originally called it “The Motograph News Bulletin” and later “The New York Times Electric Moving Letter News Sign.” Eventually, it became popularly known as “the zipper.” Its 14,800 light bulbs spelled out seminal news headlines for the next thirty-five years, until the newspaper sold Times Tower in 1963. A successor to the sign continues to operate on the building in 2018.

The Times was not the first newspaper to use its building to display news or promote its newspaper. For decades, newspapers on Park Row had been displaying bulletin boards with election returns, sporting results, ship arrivals, and other breaking news. The advent of the telegraph as a news-gathering device had whetted the public’s appetite for instantaneous news, particularly in New York City, where residents frequently assembled at newspaper buildings to learn of the latest news. Later, during the Civil War, crowds were drawn to newspaper buildings for the latest headlines and casualty lists scrawled on chalkboards. Just as they had once used newsboys to hawk papers, newspaper publishers used signs to promote themselves and to rapidly transmit news. So, too, would newspaper signs move the news from the printed page to the street, helping to reorganize readerships into audiences and expand the news cycle beyond morning and evening print editions—in a sense anticipating the act of watching television news. Newspaper signs also transformed the solitary act of reading the newspaper into a communal experience—readers consuming individually, but doing so in a group. Over time, New Yorkers would form the habit of gathering for big news stories, such as election results. In a word, this shared experience became a ritual.3

The Times’s zipper differed from the newspaper building signs that came before it. Never had such a large and complex electric news sign been constructed for a newspaper. The zipper was the forerunner to the type of electronic displays that came to dominate Times Square and the centers of other large cities in the late twentieth and early twenty-first centuries. The innovative way in which the sign animatedly delivered news also foreshadowed the ticker-like design of “crawls” displayed on the lower third of television screens during news broadcasts.

The Times’s motograph was installed during a period of high modernism, the height of what Thomas S. Hughes calls the “age of technological enthusiasm,” whose chief characteristic was “inventing, developing, and organizing large technical systems,” including those related to communication.4 It was a time in which science was king, inventors were revered, and world’s fairs were staged to dazzle and amaze. As cultural historian Norman Klein points out, the fairs themselves had become objects of national pride, providing society with an industrial epistemology. Machines were the fairs’ central attraction, their displays treated as a type of theater.5 By the time of the Chicago World’s Fair of 1893, it was the electric light that had taken center stage and had, as David E. Nye wrote, “eclipsed the great machines.”6 Whether bathing buildings in light to create the Chicago Fair’s “White City,” or colorfully lighting jetted water fountains, electrical displays inspired awe. According to Frank Presbrey’s 1929 history of advertising, the novelty of electrified signs would “excite wonderment.” It describes how, in 1895, The New York Times sign “composed of 250 jets” over the entrance to its building in Park Row, “led an unprejudiced writer” to describe the sign as “striking and almost startling to behold.” In 1898, organizers of the Trans-Mississippi Exposition used incandescent light bulbs to illuminate buildings. For those who waited to see the lights come on, “It was magnificent beyond comparison or comment and the immense crowd that had been waiting patiently for the moment gazed in dumb admiration. For a few seconds the vast court was as silent as though it was peopled with wax figures.”7

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DALE L. CRESSMAN
Such reactions convey feelings of amazement similar to those described by philosophers as sublime. For Emmanuel Kant, sublimity was the moment when one viewed something that was more than beautiful—so perfect, so divine, that cognition failed and the individual was rendered speechless, unable to comprehend the magnificence of what he was experiencing. The rhetoric of the sublime originally described features of nature, but Leo Marx applied it to technology. In *The Machine in the Garden*, Marx examined the dialectic of the spoiled and polluted industrial landscape in juxtaposition to that of unspoiled nature and pastoralism, privileged in American literature and political dialogue of the time. Marx’s examination of the machine’s intrusion into “the garden,” its conquering of nature, and resulting valorization of inventors and faith in progress, is articulated in the ideology of the “technological sublime,” wherein technology is given a religious-like reverence. For example, when steam engines were introduced, they were thought by many to be divinely inspired. Later, it was electricity that elicited the sublime and held the promise that machines failed to deliver. Nicholas Carr noted the utopian rhetoric in which it was promised that electricity “would cleanse the earth of disease and strife, turning it into a pristine new Eden,” while allowing for control of the weather and eliminating distance, “just as electric lights would abolish the ‘alternation of day and night.’” The “electrical sublime” construct was developed by Nye, who applied it to American technological wonders such as the railroad, bridges, and skyscrapers, the atomic bomb, the moon landing, and—of particular concern to the present study—the “electric cityscape,” what he calls an “unintended sublime.”

For executives at the New York Times Company, the installation of the zipper was simply the next step in displaying news on its building—an attempt to stay ahead of the competition. As we will see, they likely could not have foreseen what a cultural landmark the sign would become or what role it might play in the reorganization of twentieth-century news consumers. Drawing on documents from the archives of the New York Times Company, as well as other archival sources, this article traces the origins and construction of the *Times*’ zipper, describes the innovations and challenges connected to its operation, and illustrates its importance in the dissemination, consumption, and promotion of news. This account extends the existing literature on the history of newspaper buildings, specifically those of the *New York Times*. Furthermore, this article seeks to clarify the historical record as to which inventors are responsible for the *Times*’ zipper.

Numerous historical accounts address New York’s newspaper buildings and Park Row, the lower Manhattan site of most newspapers that served as a metonym for the press and was home to the *Times* until it vacated to Times Square. Architectural literature establishes newspaper buildings as the most prominent in late nineteenth-century New York City, a time in which monumental buildings were intended and understood as expressions of power. The use of street signs, including electrified displays, has likewise been addressed. However, relatively little attention has been given to newspapers’ use of signs. Notable exceptions are Carolyn Marvin’s study of electric communication in the late nineteenth century, in which she defines the electric sign as the original media spectacle and an overlooked aspect of the development of mass media; Ira Chinoy’s examination of newspaper bulletin boards in a larger study of election reporting; and Kevin Barnhurst’s and John Nerone’s examination of newspaper signs in the context of promotion and spectacle. As David M. Henkin pointed out in his 1998 book *City Reading*, historians have focused on the spread of newspapers themselves, largely overlooking the fact that newspapers in the nineteenth century frequently posted signs on their buildings to display news and advertising.

At first, newspapers used chalkboards. On New York City’s Park Row sidewalks, chalkboards took on a measure of permanence until the city deemed them an impediment to traffic and ordered them cleared in 1893. Subsequently, temporary signs were installed for big news events and featured limelights and magic lanterns to project bulletins on the sides of buildings. Electricity brought more elaborate projections, spotlights, and finally, microphones to present news, sports, and advertising. Publishers spent money on such displays because they were competing for readers. By giving away news, and giving it to them first—what Barnhurst and Nerone refer to as the “culture of the scoop”—they were hoping to attract readers to purchase their newspapers. They were not above using gimmicks to report on lighter fare. For example, in 1849, the telegraph carried instantaneous reports from a boxing match in Rock Point, Maryland, between Tom Hyer and Yankee Sullivan to large crowds gathered at newspaper buildings on Park Row. Later, telegraph reports of the progress of baseball games were displayed on Park Row bulletin boards. The boards were made to resemble baseball diamonds and wooden representations of players were moved on the boards to reflect the games’ developments.

Perhaps, more than sports news, it was election results that mattered most to newspapers. Not only did posting election results reliably draw crowds, but also pushed newspapers to compete with one another to provide the grandest displays. The *New-York Herald* used a “brilliant calcium light” to illuminate election results posted on its building. Likening the bright light to a “new moon,” the *Herald* claimed it was “the magnet of the moving population” on election night. A *Harper’s Weekly* illustration shows how the *New York Tribune* used a “magic lantern” (as the stereopticon was also known) to project 1866 election returns on the side of its building. For the 1878 election, “throngs of men” crowded into Printing House Square—where Park Row and Broadway converged—to read headlines illuminated by “powerful calcium lights.” The dangerous oxy-hydrogen calcium lights—or limelights, as they were also known—would soon give way to electric lights, as Thomas Edison announced in 1878 that he was bringing electric light to lower Manhattan. Ten years later, the *New York Herald* drew crowds to Madison Square on election night with illuminated election results projected on a screen, a scene portrayed in a woodcut illustration published in *Harper’s Weekly*. In 1888, the *Electrical Review* reported on a novel approach taken by one newspaper, in which news bulletins were “electrically automated,” spelling bulletins through a row of horizontal windows in which each window displayed a revolving wheel of alpha-numeric characters to spell out a series of headlines. An estimated 20,000 people watched the results of the 1892 election. “Historic Printing House Square, often in years past the gathering place of crowds mighty in numbers and enthusiasm, has seldom held such a vast throng as assembled there last evening,” the *Times* reported, adding: “Not a newspaper in the row failed to bulletin the returns, and there was not an office which did not have about it thousands of people anxious for every little scrap of information that might give them an inkling as to the result.”

In addition to the bulletin boards, New Yorkers need only have looked to the sky for flashes and colors thrown from a searchlight the *Herald* mounted on a Madison Square Garden tower. The *Herald* published the meaning of the light signals beforehand in its newspaper.

Though not a presidential election year, 1895 voting news drew crowds to Printing House Square, where *The New York Times* projected bulletins on “an immense cloth” mounted on the newspaper’s building. Five stereopticons were installed on a tall scaffold next to the Benjamin Franklin statue in the square. The *Times* reported that results received in the newsroom were sent by wire to the scaffold, “Within thirty seconds after their receipt in the editorial rooms the curious in the street read their contents on the canvas.” In between such dispatches,
the stereopticon projections kept crowds entertained with “pictorial entertainment,” including pictures of political leaders and cartoons.\(^\text{23}\)

It was all a warmup for the dramatic 1896 election that pitted Ohio Governor William McKinley’s “sound money” policies against the populism of former Nebraska Congressman William Jennings Bryan, who promised to take the country off the gold standard in favor of silver-backed paper money. It was a hotly contested election, bringing a record 79 percent of eligible voters to the polls. Newspapers on Park Row pulled out all stops for the estimated fifty thousand people who crowded onto the row and an additional 125,000 said to have gathered in City Hall Park and adjoining streets between sundown and midnight. “Never,” the New York World reported, “have such crowds been known.” The crowd’s demonstrations, reported the Tribune, “were simply volcanic.”\(^\text{24}\) Richard Harding Davis wrote of the use of cinematographs—early film projectors—that showed crowds “life-sized figures in motion,” including “McKinley walking in his garden.” Davis compared the atmosphere on Newspaper Row to one of a “football crowd on Thanksgiving Day.” It was, he wrote, “the most remarkable sight ever witnessed in New York.” According to Davis, every newspaper on the row had “from four to seven places for showing bulletins instead of one as formerly.” Lanterns and stereopticons were placed on “three decked affairs like great watchtowers,” Davis wrote, while brass bands played in front of newspaper offices. It was, Davis concluded, “a feature none of us had ever seen on an election night before.”\(^\text{25}\)

The Journal, Tribune, Times, and World enthusiastically vied for voters’ attention. William Randolph Hearst’s Journal accompanied the usual bulletin boards with a stereopticon-projected map of the United States depicting “silver and gold states’ with white or tallow-colored\(^\text{26}\) electric lights and their accompanying number of electoral votes—and even went so far as to float a “monster balloon” above the city, where it would notify New Yorkers of a McKinley victory with green lights and a Bryan victory with red lights. Promising to report on the election in “an absolutely novel and original manner,” the Tribune tried stringing red and white lights five hundred feet above its building, where it planned to flash results “to the eyes of thousands with the speed of light” with a series of pre-arranged signals. The Tribune planned to float its lighting display by way of kites, promising that results would be seen from thirty miles away. During the afternoon, the newspaper’s staff flew nine kites from a single line, allowing it to hoist a flag measuring fifteen by twenty-one feet. “Such a large specimen of the Stars and Stripes was never before lifted so far above the level of the earth,” the Tribune boasted. However, by evening, the wind subsided, bringing the kites down and forcing the Tribune to raise its rooftop lighting display with ropes.\(^\text{27}\) Chattanooga publisher Adolph Ochs assumed control of The New York Times in 1896, and for his first election as publisher, the Times provided bulletins “thrown on stereopticon screens” in both Printing House Square and Madison Square.\(^\text{28}\) In previous years, election results were handwritten, scratched with a needle onto three-and-a-half-inch, opaque glass slides and later remembered as looking more like Arabic, rather than English language characters.\(^\text{29}\) However, in 1896, the Times told readers that in both of its locations, bulletins were “printed on the lantern slides by typewriter” so the news could be read “with the greatest ease.” Despite the Times’s efforts, Ochs conceded that Joseph Pulitzer’s World had a more impressive bulletin display of the election results. The World’s bulletins were projected from five stereopticons onto a “monster screen” that covered nearly the entirety of its twenty-story front facing City Hall Park. The World boasted that it could be seen from the west side of Broadway and caused onlookers to stand on the fountain in front of City Hall.\(^\text{30}\)
Tribune claimed to be the first to project McKinley’s victory, at 8:45 p.m., but the crowds stayed until midnight.

The 1900 presidential election, a rematch between McKinley and Bryan, also featured news bulletins, but the election night crowds would never again be as large on Newspaper Row. Crowds gathered for the latest news during the Spanish-American War of 1898, too, but those occasions lacked the elaborate displays newspapers produced for election nights. In 1901, excavation for the new Interborough Rapid Transit (IRT) subway system forced the city to temporarily close the area. “For the first time since the telegraph and the telephone made it possible for newspapers to give early information as to the result of elections,” the Times reported, “Park Row and City Hall Park were clear of a great crowd.” That is not to say that election results would never again gather a crowd. They would—in midtown Manhattan.

As the nineteenth century drew to a close it was clear that Park Row’s newspaper glory days were ending. In 1893, James Gordon Bennett Jr. moved his Herald from Park Row into an opulent building designed by Stanford White at Thirty-Fifth Street and Broadway, and convinced the city to rename the surrounding area “Herald Square.” Meanwhile, New York City was expanding. Its five neighboring boroughs consolidated on December 31, 1897, and, not long afterward, the new subway system would move the city northward. Lower Manhattan had become congested, as traffic was drawn to the Brooklyn Bridge, and what writer Pete Hamill described as the “ferociously ugly” post office next to Park Row. It was becoming so congested it became nearly impossible to distribute newspapers from the row’s presses to a growing city. It was reported in July 1903 that William Randolph Hearst was considering moving his New York American and Journal to Columbus Circle, which he hoped to have the city rename Hearst Plaza. Ochs, too, knew he needed to move the Times from Park Row, for he thought it “was dying, just as old persons must die.” Ochs decided to move his newspaper to what was then Longacre Square, an area better known for horse stables and brothels. Ochs foresaw the day when the area would attract “probably a hundred thousand people” per day, thus giving his new building prominence. Already, electrification was well under way in New York. The Lyceum was the first theater in New York to have electricity installed—by Edison himself—in 1885. By the 1890s, there were so many electric signs in the theater district and along Broadway that New Yorkers began to refer to the thoroughfare as “The Great White Way.” The Evening Sun reported in 1895 of signs prominently appearing as “letters of fire.”

Ochs raised barely enough financing to erect a twenty-five-story Italian Renaissance building faced with Indiana limestone and terra cotta. It was the second-tallest building in the city, though Ochs insisted on including the basement levels to proclaim it the city’s tallest building prominence. Times Tower, as it was called, was built on a small and oddly shaped lot. However, because it was built directly over the new IRT subway station, developer August Belmont convinced city fathers to rename the square after the area’s prominent new tenant. When the newspaper moved into its building on the last day of 1904, Ochs organized a New Year’s celebration, with a fireworks display he hoped to have the city rename Hearst Plaza. The newspaper used it to post the results of the 1904 election. In notices printed in the newspaper in the days leading up to the election, readers were instructed that a steady beam of light seen pointing from the top of Times Tower to the west indicated that Theodore Roosevelt had been elected president, while a similar signal in the opposite direction indicated a Roosevelt defeat. Similarly, light signals that tilted up and down and to the west indicated that the Republican Party would seat a majority in Congress, while the same signal to the east reported a Democratic congressional victory.

Times Square drew an estimated thirty thousand people to follow the 1910 “Fight of the Century” between James Jeffries and Jack Johnson. The fight took place in Reno, Nevada, but the Times posted a blow-by-blow description of the bout on three sides of Times Tower: On the north side of the building, the newspaper used a “big revolving blackboard” to display updates; additional blackboards were employed on the side of the building facing Seventh Avenue; while in a ground-floor Times Tower window facing Broadway, the Times deployed a new “automatic bulletin machine” that the paper claimed “showed in clear, readable type, and in quick order, everything that went on in the arena at Reno, both before and after the fight started.”

The new machine was installed shortly before the Jeffries-Johnson fight and was, the Times believed, “the only one, so far as is known, in the world.” The device, which took six years to develop, allowed bystanders to read two-inch-high letters on a scroll of paper thirty-three inches wide and seventy inches high. An operator, whose typewriter was connected to the machine a few feet away, updated the bulletins. “The instant a letter on the typewriter keyboard is touched,” the Times told its readers, “the same letter is printed on the roll of paper” by rubber letters on the periphery of an eighteen-inch printing wheel at the base of the machine. The machine was used a few months later to keep crowds abreast of Walter Wellman’s failed attempt to cross the Atlantic by dirigible. “Of course, there is nothing new about a bulletin service,” the Times later admitted. However, the newspaper believed the machine added “an element of anticipation” by giving “the public the idea of being present at the actual production of the news.”

The Times added another of the machines in time for the 1912 election, providing spectators with four different views of election results on Times Tower. In addition to the thirty-foot-high revolving chalkboard the newspaper had used previously, the Times added a large canvas—“large enough to be in sight five blocks to the north”—on which “opaque lantern slides” projected election bulletins. It was, the Times reported, “the most popular device” in Times Square that election night. Other newspapers did their best to compete. As the Times noted after the 1913 election, the New York American posted “illustrated bulletin boards,” as did the Brooklyn Eagle, while reporters from other newspapers “elbowed their way, some of them taking notes” about the size of the crowd, others “jotting down figures from the bulletin boards to telephone to their own offices.” Although election bulletins were displayed in Herald Square, Union Square, and Park Row, the Times claimed that most chose Times Square. “TIMES SQUARE NOW IS CITY’S CENTRE,” the newspaper proclaimed in its headline. “Thousands Flock There to Get Election Returns, Neglecting Former Gathering Places.”

Just as it proclaimed it the new center of the city, the Times left Times Square in 1913 for its new building at nearby 229 West Forty-Third Street. However, the newspaper continued to own Times Tower, leasing office space, maintaining a classified advertising office, and utilizing the building’s exterior for display of news bulletins during elections. By the 1920s, electric signs had become more sophisticated and the Times Square landscape was fully lighted with colorfully animated, electrically illuminated signs known as “spectaculars.” Critics thought the signs garish and vulgar, but they
drew crowds. Among the spectacles were those called "talking signs" or "flashers," animated by their light bulbs flashing on and off. However, a newer type of talking sign had emerged, a so-called "runner," in which letters appeared to run across the sign, from its right to left side. New York advertising sign executive Frank C. Reilly had already installed such signs in Chicago and New York City's Columbus Circle. Reilly's sign controller functioned similarly to a piano player in that content would be spelled out by punching holes on a roll of paper. Then, as the paper was conveyed past the controller, pegs would fall into the holes, thus allowing switches to turn corresponding lights on and off. Riley called it a "motograph." One inherent weakness in Reilly's sign design was that because content was punched on a roll of paper, the lighted signs could not be terribly long, lest the paper tear because of the weight of the roll.

Although it is not known precisely when, at some point in the 1920s Reilly met a young engineer named Francis E.J. Wilde. Born in San Francisco, Wilde came to New York City to work for a steamship company before going into business for himself. Reilly was impressed with Wilde, introduced him to the burgeoning electric sign business, and then invited the young man to join his enterprise. While in Reilly's employ, Wilde found a solution to the problem of the moving letter sign being limited in size by the length of the paper roll. Wilde developed a motograph whose messages could be more readily changed by using interchangeable letters. Rather than using punched paper, Wilde's system utilized metal letters, five and one-half inches high, and mounted on Bakelite. These were inserted into a magazine capable of accommodating as many as seven hundred characters or spaces. Messages were constructed in a manner similar to that of manually setting type. When readied, a magazine then traveled on a track beneath a series of brushes that were connected to light bulbs on the sign. As the letters were conveyed past the brush block, electrical current to various light bulbs was established, then broken, thus briefly lighting individual bulbs to duplicate on the sign what the operator had set in type. This produced the effect of words moving from right to left. Wilde applied for patents in 1925 and established his own company. Reilly reportedly tolerated, perhaps even encouraged, Wilde to patent the invention as his own, and the two continued to work together, on the same projects and in the same office, even as the two men had their own companies. Wilde even made Reilly the president of his company.

In 1926, Reilly suggested that Ochs make a new investment by "encircling the Times Building with a Moving Letter Sign." The Times, long interested in the value of promotion, was about to install its most famous sign. Reilly not only sought to assure Ochs that the idea of installing a moving letter sign was "thoroughly practical," he also appealed to the publisher's pride in Times Tower, writing to Arthur Hayes Sulzberger, Ochs' son-in-law and deputy, that "there is no location in all the world like The Times Building and the idea of displaying your messages and bulletins on all four sides would prove a master stroke of publicity and public service." By installing such a unique sign, Reilly wrote, the newspaper would be "giving to Times Tower, then move eastward until reaching the northeast corner where the letters continued southward and around the building until the message arrived back at the northwest corner. The letters on Wilde's system would be in contact with brushes for less than half a second, requiring the sign to have light bulbs capable of turning on and off quickly enough to animate the intended words. The display would be set at a fifteen-degree angle to make viewing practical from street level. For Reilly's company, it would be "the most ambitious undertaking that has been presented." However, Reilly assured Sulzberger, "We have no concern regarding our ability to carry it through." Reilly told the Times that by using the best materials the sign would operate for "ten or fifteen years, or even longer."

The original agreement between the Times and the Motogram Company, signed July 26, 1928, called for the display to be finished in time for the 1928 presidential election in November. "If we undertake
this job we want to go so far in making it sure hundred percent that there can be no regret of any kind on either your side or mine,” Reilly wrote to Sulzberger. The cost was not to exceed $50,000.

In the end, the project was much more difficult and expensive than either party expected—and there were regrets. Trouble might have been foreseen in the original agreement, in which Reilly specified, “Out of necessity, many of the details of construction will have to be developed as the work progresses.” Reilly proposed to “keep in constant touch” with the Times regarding any changes. There were significant changes. Rather than using ten horizontal rows of light sockets for four-foot tall letters, it was determined the sign would be more readable with letters five feet tall, which required twelve horizontal light sockets. The number of lights would total 14,800, requiring 38,000 brushes, and some three tons of copper wiring. In essence, the Times was paying for a prototype. It took eight weeks to install. “Times Square has been watching for weeks,” the Times reported, “the installation of the massive copper panel, studded with light bulbs, which girdles the four sides of the building.” As election night drew near, work continued twenty-four hours each day, with the installation finished just in time to turn it on for election-night coverage. Rather than installing one of Reilly’s controllers, with a perforated paper roll for stock copy, the Times elected to build two of Wilde’s controllers, each capable of loading news content. That decision also increased the cost of the sign. Nevertheless, only one of the controllers was finished in time for the election and it was installed on the fourth floor of Times Tower. Direct current power was drawn by way of underground cables from the Times’s new building on West Forty-Third Street.

Clearly proud of the election-night performance of the device, the newspaper reported it would have the sign in nightly operation “within a short time.” The Times considered its sign as a “news-reel” more than an advertisement, adding, “The apparatus is not merely an electric sign but in one sense a newspaper as well, so the control room is also a news room and composing room.” Privately, Times executives were less sanguine. The newspaper had agreed to pay the cost for the building of the sign, plus a 15 percent fee with the total cost not to exceed $50,000. However, it cost Motogram more than $80,000 to build the sign, bringing the total cost to the Times to $119,619.74. Reilly and Wilde believed the newspaper would pay for the increased costs associated with the project, but by the time the project was complete, the Times had paid out only $40,000. Times Company records suggest Motogram sued the newspaper in late February 1929. Among Sulzberger’s management team, there was grumbling over the increased costs and discussion over what caused it, including a “lack of detailed preparation.” Blaming the “mad anxiety to get the sign ready before Election Day,” and realizing that they had purchased a one-of-a-kind in which “no drawings were made of any part of this sign and no specifications drawn up that would enable intelligent figures to be obtained from outside contractors,” Times executives concluded they should have had the project “carefully worked out on paper before attempting to go ahead.” In writing to Reilly’s attorney, Sulzberger indicated that Ochs was willing to settle the matter, paying a sum of $209,550 to cover Reilly’s additional costs.

The matter of money appeared to be settled, but it would continue to rankle both parties. In March 1931, American Magazine published a flattering feature on Frank Reilly. The magazine said Reilly was “the man who brought the moving sign to Broadway.” Wilde was mentioned as “his associate.” However, the article appears to have enraged Wilde, prompting him to write to Adolph Ochs himself: “The articles and photographs are so worded,” Wilde wrote, “so lead the public to believe that the inventor of your sign is Frank C. Reilly. This is not the truth.” Wilde reminded Ochs that the original plan had been for a sign ten light sockets high, with one controller, “[b] ut we were persuaded to erect two controlling apparatus to operate an outside letter of twelve sockets high.” Wilde wrote that he had believed the Times would have “gladly” paid for the extra costs. However, he was “greatly misled and sadly disappointed” when he learned the newspaper company would not open its wallet. Though no document could be found in the Times archives to suggest royalties were agreed upon, Wilde claimed that he should have been owed $54,000 in royalties for the use of two controllers over ten years—“quite a large sum to cancel without leaving a delicate feeling of regret [sic].” Wilde claimed he agreed to cancel the royalty and permit the times to use the controllers “under a personal lease without any compensation to my corporation or myself.” Then, indicating a level of animosity that apparently had developed between the two business partners, Wilde wrote, “I made Frank C. Reilly the president of my corporation but did not give him the privilege to personally masquerade as the exclusive genius and thereby jeopardize the interests of our company.” There is no indication in the letter that Wilde held any expectation of extracting additional money from the Times. However, he did ask, “in the interest of fair play” that the newspaper “change your records, should they at present state that any other than myself invented and designed the Motogram news bulletin.” There is no record of a reply. Wilde and Reilly continued working together until Wilde’s death in October 1940, when Wilde’s son took over. When Reilly suggested that the younger Wilde’s Motogram interests be sold to Frank Reilly Ltd., Wilde moved out of the office to maintain his independence.

Wilde was not the only inventor who felt Reilly unfairly claimed credit for the moving-letter sign. Everett Bickley invented the original motograph in 1911, installing it over the Columbian Theatre in Detroit. Bickley got the idea as he watched Detroit residents looking at a “talking” sign that consisted of an animated chariot race, with short messages below. He noticed people would watch the chariot race, but when it paused, they ignored the messages, which were flashed one letter at a time. He concluded that a moving letter sign would garner their attention and determined to build just such a sign, convincing a theater owner to fund the project. It was Bickley who first came up with the idea to use perforated rolls of paper to turn light bulbs on and off. He assumed that the makers of piano players would have an efficient way to perforate the paper. They did not. So, Bickley invented a small machine to do the job. His first sign was eight lamps high, totaling 996 lamps. Not only was it used to advertise for the theater on which it was installed, but it also displayed election returns in 1912 for the Detroit Free-Press. Other newspapers used stereopticons to throw results on screens, but Bickley claimed his motograph kept the Free-Press ahead of the competition.

Bickley had ideas, but money he lacked. Not long after inventing the motograph, he sold a 10 percent interest in the company for $200 to Frank Reilly. According to Bickley, Reilly was insistently on buying into the Bickley Manufacturing Company and working as its sales manager. After spinning off a new Motograph Corporation, Bickley claimed Reilly spent so much money in attempts to drum up business in Chicago and New York, that the company’s finances were negatively impacted, leading Bickley to sell his interest in the company. Reilly, meanwhile, went to New York in 1914, eventually taking over the company. “In numerous interviews in later years with reporters,” Bickley later said, Reilly “claimed to be the original inventor of the Motograph.” Over time, Bickley said, “people had forgotten who really invented it.”

For his part, Reilly also remained bitter about his dealings with the Times. In a lengthy letter to Arthur Hayes Sulzberger in 1939, Reilly recounted the problems of installing the sign, adding, “I sometimes wonder whether it has ever occurred to you, and I am sure it has not, that I never received a penny for my enterprise and tenacity.
in sticking to the job of selling the idea to the Times, and for my personal services in planning the installation, carrying it to completion, and for the use of our rights ever since November 6, 1928."  

Despite the hard feelings, Reilly did claim and receive a large portion of the credit for the Times zipper. When he died in 1947, the Times wrote that the zipper "was a Reilly masterpiece." The Times even reported that Reilly's first sign was installed in Chicago in 1912, although that was likely Bickley's sign, given that Reilly hadn't even filed a patent application for improvements on Bickley's design until 1918. The perception that Reilly was responsible for the zipper's design persists even in academic literature.  

The Motogram Company promised the Times that the sign would last a decade. But in twenty years of near continuous operation, none of the signs 190 panels, would need to be replaced. Only the light bulbs—originally amber, but later twenty-five-watt white lights—would need to be replaced every two weeks. The zipper would continue putting out 21,925,664 lamp flashes per hour for 4,971 consecutive evenings, until it was turned off for the first time on May 18, 1942. Before acceding to the wartime dim-out, the newspaper messaged: "The New York Times bids you good-night." The zipper was turned on again briefly when the dim-out was lifted on October 18, 1943, but sometime after D-day would go dark again for energy-saving brownouts. It would not be turned on again until V-J Day in August 1945. As the Times waited for word of Japan's capitulation, electrician James Torpey worked for nearly twenty-four hours to get the zipper ready to announce the end of the war. A reported 750,000 gathered in Times Square on August 14, 1945, hopeful of receiving the official news of the war's end. At 7:03 p.m., the zipper flashed the news: ***OFFICIAL *** TRUMAN ANNOUNCES JAPANESE SURRENDER.  

Never again would the zipper draw such crowds. As early as 1948, suggestions were made that television was keeping significant numbers of people away from Times Square on election night. In 1952, the newspaper redoubled its election efforts, adding an eighty-five-foot lighted sign that resembled a thermometer on the building's north façade. It mattered little, as Meyer Berger reported: "Times Square last night had the smallest Election Night turnout in its long existence. It was the least demonstrative crowd, too—without voice, without the traditional horns and bells, and utterly without enthusiasm." By November 1960, the transformation seemed complete. "Times Square, which teemed with excited citizenry on election nights of the pre-television era, drew little more than the usual weekday crowd last night," the Times reported the day after John F. Kennedy was elected president.  

As the crowds dwindled, so too did the newspaper's desire to keep Times Tower. The building badly needed an update to its electrical system; tenants were demanding air conditioning, which the tower's infrastructure could not support. Worst of all, the building was deteriorating. Water had seeped into the structure, corroding the steel columns. Falling pieces of terra cotta presented a danger to those below. Times executives mulled various options, ranging from upgrading the building to demolishing it. The option that made the best financial sense was to sell the building. "I will have to do a lot of thinking about it before I do say yes to that," Sulzberger told family members. He knew the building's small, oddly-shaped footprint made it unattractive for anything else but a place to install advertising spectulars. "I can't see the Times Tower turned into a big ad sign for Coca Cola on one side and Kotex on the other." Sulzberger felt he owed his father-in-law "too much to permit the building to be misused." Sulzberger was also reluctant to let go of the now-famous zipper, despite its diminishing impact. Nevertheless, Sulzberger's son, Arthur Ochs Sulzberger, and other Times executives convinced the elder Sulzberger that the zipper, too, could be discarded. "The sign is antiquated and can be relinquished without tears," he was told.  

Despite later misgivings about not allowing other publishers to use the zipper, Sulzberger agreed to part with the historic building, selling it to developer Douglas Leigh in 1961. Just two years later, Leigh sold it to Allied Chemical. In an effort to make it look more contemporary, the building's limestone and terra cotta exterior was replaced with marble and glass. Meanwhile, as the adult entertainment industry seeped into Times Square, the neighborhood fell into a period of disrepair and ill repute. Times Tower was renamed One Times Square, its plain-looking façade noticed only because of successor versions of the zipper and, later, an increasing number of advertising signs also mounted on it. As Times Square was revitalized in the mid-1990s, large video screens came to dominate the landscape, while a digital version of the zipper continued to move headlines across Adolph Ochs's old building. Nevertheless, just as Arthur Hayes Sulzberger had predicted, the building was used mostly to display advertisements. Times Square continued to draw tourists year-round and large crowds on New Year's Eve. However, it's unlikely anyone goes there just to get the news; no longer are the crowds themselves
considered, as they once were, sublime.93

This is not to suggest that news signs would disappear. News in lights persists—both in the form introduced by the zipper and as enormous digital video displays. However, their nature and purposes have changed. No longer installed just for election nights, or with the expectation of disseminating news to large crowds, signs have, nevertheless, literally overtaken building façades full-time. Buildings—what Lewis Mumford had once suggested were metonyms for filing cabinets—have become, in some cases, "media machines."94 The zipper’s successor, Nye suggested, has become "a part of consciousness, translating events into display, fusing the news into the edited landscape."95 Architecture, first made unstable by magic lantern projections, has become even more chameleon-like, a fusion of ambient media content with glass and steel.96 Now, there are so many signs—both advertising spectaculars and content-laden digital video displays—that Times Square itself has become something of a media event.97 Not insignificantly, a space once known for disseminating news to large crowds is now dominated by advertising and other symbols of late consumer capitalism.

Preceded by chalkboards, magic lantern projections, and electrically lighted signs, the zipper arrived when advertising ‘spectaculars’ were already well established on “The Great White Way.” The zipper came about within this context of electrification: it was the next innovation for Adolph Ochs to not only transmit the news more quickly and efficiently, but to captivate crowds. Like the newspaper signs that preceded it, the zipper was a product of newspaper promotion, competition, and the desire to be first. Applied to journalism, this electric spectacle—known in advertising as a ‘spectacular’—was an early example of blurring the distinction between journalism and media event.98 Even as publishers found themselves “giving away” news, the “culture of the scoop” was a commercial imperative significant enough to justify the signs’ adoption and expense.99 As Randall Patnode points out, the “discourse of progress” was “essential to the financial well-being of the print media,” particularly in the 1920s, as it was challenged by radio.100 By midcentury, television would emerge as the medium to which audiences would habitually turn. When Times Square election night crowds in November 1960 were deemed no larger than those on any other weekday, the Times blamed television. Surveys later indicated that television actually overtook newspapers as a primary source of news in 1963.101 What had once evoked amazement had become commonplace (as Gunning put it, “astonishment is inherently an unstable and temporary experience”).102 Meanwhile, even the Times came to consider the zipper a “news-reel”; its control room as both a newsroom and a composing room. Without fully realizing it, the Times anticipated television; unintentionally, the zipper would both presage the medium and be eclipsed by it.

What started as a way of promoting newspapers helped reorganize readerships into audiences, as the publishers’ core business of printing was transformed into delivering news continuously, ultimately whetting readers’ appetites for breaking news and foreshadowing today’s continuous news cycle. As Thomas Elsaesser points out, nineteenth-century Americans were “as hungry for instantaneity, for simultaneity, and interactivity as we are today.”103 Arguably, electric signs have been as significant for the reorganization of twentieth-century mass communication audiences as were telephones or the wireless telegraph were in the nineteenth century.104 Marvin reminds us that electric light is often overlooked as a direct ancestor of broadcasting, as “families and individuals retreated indoors to well-lighted living rooms to watch on television the descendants of the public spectacles that had once entertained communities in the town square.”105 In other words, news sign viewers became television viewers. “New technologies rarely by themselves lead to changes in the news,” historian Patricia Dooley writes. But “they sometimes trigger effects in the industrial and occupational structures of journalism.”106 The zipper is such a technology that helped trigger changes in both the news and its audience.

Crowds in Times Square read the zipper’s headlines of the D-day invasion, June 6, 1944. Office of War Information, Library of Congress. Public domain.
NOTES


3. Kevin G. Barnhurst and John Nerone make the distinction between a communal audience and a those who are reading “en mas but not in a community.” See Barnhurst and Nerone, *The Form of News* (New York: Guilford Press, 2001), 182. James W. Carey characterized newspaper reading as a ritual in which news is not only transmitted, but its consumption becomes a social act. See Carey, *Communications as Culture* (New York: Routledge, 2009), 16.


15. Election-night crowds were not always drawn for altruistic reasons. After the 1841 election, the *New York Herald* reported that a mistaken bulletin posted on the *Courier and Enquirer’s* board led to some bad bets. See Henkin, *City Reading*, 87. The 1860 election drew so many people to Park Row that the Herald described the sound of crowd to “rumbling of distant thunder.” See “The Scene around the Herald Office,” *New York Herald*, Nov. 7, 1860. Marvin notes that newspapers’ reporting of election results in the late nineteenth century was “the most ambitiously organized American effort to use new technologies to deliver the news.” See Marvin, *When Old Technologies Were New*, 217.

16. The Herald’s calcium light was described in “Scenes around The Herald Office,” *New York Herald*, Nov. 9, 1864, 8. The Tribune’s stroboscopic was portrayed in “Election Returns—Scene in Front of the N.Y. Tribune Office,” *Harper’s Weekly*, Nov. 24, 1866, 744.

17. In *Printing-House-Square, Scenes around the Newspaper Offices,* *The New York Times*, Nov. 6, 1878. A similar scene drew tens of thousands of New Yorkers into Park Row to learn of election results in 1884, where fights were reported, as well as songs, rumors, and insults. However, the election was too close to call, rendering newspapers’ bulletin board displays useless. See James McGrath Morris, *Pulitzer: A Life in Politics, Print, and Power* (New York: HarperCollins, 2010), 233.


19. The building on which the screen was installed was on the future site of the Flatiron Building. See “Madison Sq., N.Y., on Election Night,” *Harper’s Weekly*, Nov. 17, 1888.

206 Journalism History 43:4 (Winter 2018)


22. "Election Returns," The Electrical Review, Nov. 19, 1892, 151, also noted similar arrangements made by the New York World and the Chicago Herald and "many other newspapers throughout the country."


26. Tallow candles, which burned wicks in far rendered from cows or sheep, emitted a pale amber color. In this case, tallow lights were intended to represent McKinley and his promise to maintain the gold standard, while white lights represented Bryan and his campaign promise to replace the gold standard with silver-backed paper money.


28. The Tribune's bulletin in Madison Square was posted on the north side of the Cumberland Hotel, where the newspaper maintained a twenty-foot electric advertising sign with its new slogan, "All the News that's Fit to Print," as well as a plug for its Sunday magazine. The building, located on a plot of land known as the "Cowcatcher," had long been a site of painted advertisements. In 1892, it was the site of New York's first "spectacular," a giant electric light advertisement for Long Island properties. Before the building was razed to make room for the Flatiron building, it hosted a controversial spectacular for Heinz featuring a giant pickle. See Presbrey, The History and Development of Advertising, 506; and Starr and Hayman, Signs and Wonder, 55-58.


34. Cressman, "From Newspaper Row to Times Square," 184.


37. For an account of the electrification of New York City, see Burrows and Wallace, Gotham, 1149. Descriptions of electrical signs are offered in David E. Nye, Electrifying America: Social Meaning of New Technology, 1880-1940 (Cambridge, Mass.: MIT Press, 1990), 50; and Marvin, When Old Technologies Were New, 163.


39. Tell, Times Square Spectacular, 22.


41. For example, the Chicago Record used a searchlight to report results of the 1896 election by using a series of signals published beforehand in the newspaper. See Marvin, When Old Technologies Were New, 168, 219.

42. According to one account, it cost $167,186 to finish and furnish the top six floors as well as install the observatory and lantern atop it. See unitiled, box 47, folder 4, Adolph S. Ochs Papers, NYTA.


50. Originally named the "New York Times Annex," the building at 229 West Forty-third Street was built in several stages between 1913 and 1948. See Cressman, "From Newspaper Row to Times Square," 187.

51. Tell, Times Square Spectacular, 44.

52. Ironically, the Times was among those in 1910 that questioned whether the rapid growth of "freak electrical advertising" was in the city's best interests. See "Electrical Signs; Movement in New York to Regulate Incandescent Advertising," The Journalist Combined with The Editor and Publisher, Sept. 17, 1910, 1.


57. Bakelite was the first plastic to be created from chemicals and was used in this instance as an insulator. For more information on the development of Bakelite and its uses, see Wiebe E. Bijker, "The Social Construction of Bakelite: Toward a Theory of Invention," in The Social Construction of Technological Systems, ed. Thomas P. Hughes and Trevor Pinch (Cambridge, Mass.: MIT Press, 2012), 159-87.

58. Francis E. J. Wilde, "Electric Sign," (U.S. Patent 1,626,899, filed Sept. 23, 1925, and issued May 3, 1927); and Francis E. J. Wilde, "Electric-Sign Control," (U.S. Patent 1,626,900, filed March 24, 1926, and issued May 3, 1927). Wilde's son characterized his father's relationship with Frank Reilly as "friendly enemies." Wilde said his father's partner was a "super salesman." See Wilde II interview. Regarding Wilde designating Reilly the president of his company, see Francis E. J. Wilde, letter to Adolph Ochs, March 8, 1931, box 25, folder 2, Arthur Hayes Sulzberger Papers, NYTA.

59. Frank C. Reilly to Arthur Hayes Sulzberger, Jan. 21, 1926, box 25, folder 2, Arthur Hayes Sulzberger Papers, NYTA.

60. Ibid.

61. Ibid.


63. Reilly to Sulzberger, Jan. 21, 1926.

64. Ibid.

“The Times’ Famous News Sign Will Be 20 Years Old Saturday.” The normal operation hours for the sign were 4 p.m. until midnight, at an estimated cost of $417 per week. In September 1939, The Times considered expanding hours to 10 a.m. until 1 a.m., at a cost of $754 per week. See untitled Sept. 19, 1939, memo to Arthur Hayes Sulzberger, box 25, folder 2, Arthur Hayes Sulzberger Papers, NYTA. Although there is no record of whether hours were extended at that time, there is mention of operations being extended to sixteen hours daily on June 6, 1944, on the occasion of the World War II D-day assault. See untitled, undated memo in Buildings: Commercial-Times Tower-1920, Arthur Hayes Sulzberger Papers, NYTA.

For information on wartime blackouts and dim-outs, see David E. Nye, When the Lights Went Out: A History of Blackouts in America (Cambridge, Mass.: MIT Press, 2010). Also, see untitled memo, Buildings: Commercial-Times Tower-1920, and “The World’s Greatest Moving Letter Sign,” both in box 25, folder 2, Arthur Hayes Sulzberger Papers, NYTA. The number of consecutive days the sign was lighted is from “The Times’ Famous News Sign Will Be 20 Years Old Saturday.”

Worried that the sign might have deteriorated because of lack of use, The Times tested the zipper on Sept. 21, 1943, and found it not only in working condition, but functioning well enough to make a neighboring Coca-Cola sign “look sick.” See Orvil Dryfoos to Arthur Hayes Sulzberger, Sept. 21, 1943, box 25, folder 2, Arthur Hayes Sulzberger Papers, NYTA. Times Square that day to see the crowd react to the victory bulletin.” See Arthur Hayes Sulzberger to James J. Torpey, undated, box 25, folder 2, Arthur Hayes Sulzberger Papers, NYTA. Sulzberger later presented a photo of Times Square taken on V-J Day, inscribed, “To James Torpey, who told this crowd in Times Square that the war was over.” See “The Times’ Famous News Sign Will Be 20 Years Old Saturday”.

The Times Square website suggests that by 10 p.m., more than two million people had assembled in the area. See “V-J Day History,” Times Square, http://www.timessquareny.org/events/kiss-in-v-j-day-history/index.aspx?U=4aA0ZRDW8Y. The Times reported in 1948 that there were three million “anxious folks gazing at that sign.” See “The Times’ Famous News Sign Will Be 20 Years Old Saturday”; and Anthony Bianco, Ghosts of 42nd Street: A History of America’s Most Infamous Block (New York: Harper Perennial, 2004), 122.


See Cressman, “From Newspaper Row to Times Square,” 189.

Ibid. See Cressman, “From Newspaper Row to Times Square,” 189.

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