

EDISON'S ILLUMINATORS.<sup>a</sup>

THE FIRST DISTRICT BRILLIANT WITH THE INCANDESCENT LAMP—THE ISOLATED SYSTEM IS IN SUCCESSFUL OPERATION.<sup>1</sup>

Anonymous Article in the New York Herald

In stores and business places throughout the lower quarter of the city there was a strange glow last night. The dim flicker of gas, often subdued and debilitated by grim and uncleanly globes, was supplanted by a steady glare, bright and mellow, which illuminated interiors and shone through windows fixed and unwavering. From the outer darkness these points of light looked like drops of flame suspended from the jets and ready to fall at every moment. Many scurrying by in the preoccupation of the moment failed to see them, but the attention of those who chanced to glance that way was at once arrested. It was the glowing incandescent lamps of Edison, used last evening for the first time in the practical illumination of the first of the districts into which the city had been divided. The lighting, which this time was less an experiment than the regular inauguration of the work, was eminently satisfactory. Albeit there had been doubters at home and abroad who showed a disposition to scoff at the work of the Wizard of Menlo Park and insinuate that the practical application of his invention would fall far short of what was expected of it, the test was fairly stood, and the luminous horseshoes did their work well. For a long time the company have been at work preparing for the lighting of the district. But there were obstacles to them which occasioned worrying delays. The insertion of meters had first to be attended to, and then came the inspection by the Board of Fire Underwriters. As there was but one competent expert engaged with this work it naturally lagged, and it is still being pressed forward in places where the lighting apparatus is not yet ready.<sup>2</sup> Then there were difficulties to be encountered in the laying of the wires and the establishment of connections. So, many people shook their heads at failure of the promised radiance and believed something was amiss. The company went on untiringly, however, and last night it was fairly demonstrated that the Edison light had a very fair degree of success.

THE LAMPS AGLOW.

It was early in the evening that the current was first transmitted over the wires and the carbon horseshoes became aglow.<sup>3</sup> The machinery worked well from the start and the marked difference of the electric and gas illuminators was apparent at once. Some had based their ideas of the Edison light upon the



pole electric light made familiar to them on the thoroughfares. They were a trifle disappointed at first when they saw the soft, mellow radiance of the incandescent lamps devoid of the anticipated glare and brilliancy. But when they came to remember that the light is to be used indoors for purposes of business where the eye would suffer from the too trying glow—for the store, the counting house, the workshop and for domestic uses they came to appreciate how well the mellow yellowish light performed its functions. When the illumination was begun Mr. Edison stood in the workshop of the central office of the first district, at No. 257 Pearl street, in his shirtsleeves, superintending the work. Through the machinery the men flitted about busy as bees. Messengers came speeding in to say all was ready, and then the complicated apparatus was set going, and in a twinkling the area bounded by Spruce, Wall, Nassau, and Pearl streets,<sup>4</sup> where the incandescent lamps had been introduced, was in a glow. There had been scientists who claimed the lighting of such a space by such a method an impossibility. But the result proved the contrary, Edison was vindicated and his light triumphed. Over the lighted area were big buildings like the Drexel and little stores tucked away in dark corners, but the communication nowhere failed, and the practicability of the multiple arc method was attested. All the lights in this space were not started last evening. In some places only a few of the number in readiness for lighting were wanted, but about three thousand were aglow, and if everything goes well over five thousand illuminators will soon be in readiness for use.<sup>5</sup> Among the larger buildings in this section where the light was used are the Drexel Building, *Times* Building,<sup>6</sup> Polhemus',<sup>7</sup> Barnes',<sup>8</sup> Greene Sons',<sup>9</sup> Washburne & Moore's<sup>10</sup> and others.

#### ACTION OF THE LIGHT.

As the evening progressed the action of the light was curiously watched by those who had it close to them. But it rarely lessened its strength, and for the first night the illumination, except in very odd instances, was singularly powerful and even. The group in the company's office seemed perfectly satisfied, and expressed a full conviction that once it was fairly set in operation there would be no interruptions. Mr. Edison said that he was convinced such would be the case did not any unforeseen and unknown phenomena intervene.<sup>11</sup> Care would be taken to watch all influences that would offset the light, and doubtless new information tending to make it even more perfect would be gleaned. Altogether the experiment in district lighting was pronounced a success.<sup>12</sup>

The other method of introducing the incandescent lamp has also been well received. In some of the buildings down town, where an immense number of lights are used, the Edison Company for isolated lighting have put in their apparatus. They are able to put in plant in houses with a capacity of from fifteen lights upward. The HERALD building has the largest isolated apparatus for lighting in the city.<sup>13</sup> In it are 600 lights, of which 500 were used for illumination last night. To supply them are used a Babcock & Wilcox boiler and an Armington & Sims engine running with two of the 250 light dynamos, and with a capacity in boiler and engine to add three more dynamos. The isolated system of lighting has also been introduced in the American Bank Note Company Building, in Thurbers, E. S. Jaffray's, Everett's Hotel, Aitkinson's and Ams'.<sup>14</sup> If the light is made of thorough avail it is proposed, too, where great power is required, to introduce electric motors instead of steam.

PD, *New York Herald*, 5 Sept. 1882 [p. 6]. In Cat. 1016, Scraps. (TAED SM016006b; TAEM 24:82). \*Followed by dividing mark.

1. This event was also reported in the *New York Times* ("Miscellaneous City News. Edison's Electric Light," 5 Sept. 1882, 8); the *New York Tribune* ("Electricity Instead of Gas," 5 Sept. 1882, 1); the *New York World* ("Edison's Incandescent Light," 5 Sept. 1882); Cat. 1018, Scraps. [TAED SM018029a; TAEM 24:248]; and the *New York Daily Graphic* ("The Electric Light," 5 Sept. 1882, 454); as well as the 15 September issue of the *Operator* ("Successful Inauguration of the Edison Electric Light System," 13 [1882]: 392). This document was reprinted with the *Times* and *Tribune* articles in the 12 September 1882 bulletin of the Western Edison Light Co. (Bulletin 1:6–11 [TAED CA005A, CA005B, CA005C; TAEM 96:308–10]).

These accounts generally expressed tempered enthusiasm (see Bazerman 1999, 232–33). Referring to electric lighting's uncertain cost relative to gas, the *New York Daily Graphic* concluded that it was "by no means certain that gas will be driven out of general use for lighting purposes even if this experiment with the electric light should meet all of Mr. Edison's predictions." In recognition of journalism's commercial imperatives, Eaton pointed out regarding the August *Tribune* article on various electric light enterprises that "the Tribune people are going to give the best notice to the company that pays the most money" for copies (Eaton to TAE, 22 July 1882, DF [TAED D8226ZAT; TAEM 61:344]; "Electric Light," *New York Tribune*, 14 Aug. 1882, 2).

2. The entire district was not yet illuminated because the Board of Fire Underwriters had not completed its inspections. According to Sherburne Eaton, Robert Osborne, the sole inspector, was "so pressed with work from various light companies that he will be unable to give our requirements exclusive attention." Osborne reportedly asked for a list of buildings that the company wished to light first, so that he could inspect them in time. "Miscellaneous City News. Edison's Electric Light," *New*

*York Times*, 5 Sept. 1882, 8; Eaton to TAE, 14 June 1882, DF (TAED D8226X; TAEM 61:277).

3. Other accounts state that the dynamos started at three o'clock. The lights in the *New York Times* building were in use by 5 p.m., though their effect was not fully appreciated for several hours. "Miscellaneous City News. Edison's Electric Light," *New York Times*, 5 Sept. 1882, 8; "Electricity Instead of Gas," *New York Tribune*, 5 Sept. 1882, 1.

4. The boundary of the First District extended several blocks southeast to the East River.

5. The Edison Electric Light Co. reported having 2,323 lamps installed by the middle of October. A newspaper account shortly before the station opened stated that the company expected to provide 7,916 A lamps and 6,395 B lamps, which would have exceeded its rated capacity (Edison Electric Light Co. Bulletin 14:1, 14 Oct. 1882, CR [TAED CBo14; TAEM 96:754]; "Electric Light," *New York Daily Tribune*, 14 Aug. 1882, 2). Approximately 4,100 lamps of 8, 10, 16, 20, and 32 candlepower were connected by February 1883, but the number of each kind is unknown. The station had a record 2,214 of these in use at 5 p.m. on 30 January; the average number in use at any time was about 1,000. The Edison Electric Light Co. published a table in October 1883 showing the number of buildings wired for service and aggregate number of lamps in use at intervals up to that time. Its bulletins contain information about changes in the number of customers and lamps (Edison Electric Illuminating Co. report, 2 Feb. 1883, Miller [TAED HM830169A; TAEM 86:514]; Edison Electric Light Co. annual report, 23 Oct. 1883, CR [TAED CBo20442; TAEM 96:887]; see also Charles Chinnock test report, 3 Nov. 1882, DF [TAED D8326V; TAEM 66:695]).

6. The offices of Drexel, Morgan & Co. at 23 Wall St. (see Doc. 2288) contained 100 lights; the *New York Times* building at 41 Park Row had 52. "A Successful Inauguration," *Operator*, 15 Sept. 1882, 392; Jones 1940, 183.

7. Probably the printer John Polhemus located at 102 Nassau Street. *Rand's New York City Business Directory* 1881, 383; *Trow's New York City Directory* 1883, 1310.

8. Probably the publisher A. S. Barnes & Co. located at 111 William Street. *Rand's New York City Business Directory* 1881, 79; *Trow's New York City Directory* 1883, 78.

9. Probably the printer S. W. Green's Son at 74 Beekman Street. *Rand's New York City Business Directory* 1881, 380.

10. This is the Worcester, Mass., wire manufacturer Washburne, & Moen Manufacturing Co., which had facilities located at 16 Cliff and 241 Pearl Streets. According to the *New York Times* (see note 1), which misidentified the firm as Washburn, Moen & Co., they had 50 lamps supplied by the Pearl Street station. *Trow's New York City Directory* 1883, 1707 and display ad.

11. For reference to Edison's whereabouts on this day see Doc. 2288 n.1. The *Operator* (see note 1) reported on Edison's mood: "Mr. Edison's countenance showed that he was greatly pleased. 'I have accomplished all that I promised,' he said. 'It was not without some fear that I started the machinery this evening. I half expected that some new phenomena would interfere with the working of the light.'"

12. In a draft reply to an inquiry at this time, Edison wrote that

“No one uses gas where our lights are in 1st dist.” TAE marginalia on Bullard to TAE, 14 Sept. 1882, DF (*TAED* D8220ZAI; *TAEM* 60:799).

13. The Herald Building at 220 Broadway (near Ann St. and Park Row) was just outside the Pearl St. distribution district. The current for its lamps came through underground conductors from two K generators several blocks away. It began operating on 4 September. For unknown reasons, publisher James Gordon Bennett cabled from his home in Paris to stop the plant in late December. Edison offered to extend his central station lines to the building immediately; the *Herald* was connected to the network in the spring of 1883. Edison Electric Light Co. Bulletins 5:6, 14:10–11; 17 Mar. and 14 Oct. 1882; CR (*TAED* CBo05, CBo14; *TAEM* 96:681, 96:754); Sherburne Eaton to TAE, 23 Dec. 1882; TAE to Bennett, 23 Dec. 1882; both DF (*TAED* D8224ZDC, D8224ZDD; *TAEM* 61:136, 138); “The ‘Herald’ Building Lighted with Edison’s Lamps,” *New York World*, [5 Sept. 1882], Cat. 1018, Scraps. (*TAED* SM018029a; *TAEM* 24:248).

14. The American Bank Note Co., the leading engraver and printer of postage stamps, bonds, bank notes, and stock certificates, installed 125 lamps. They were headquartered at 142 Broadway from 1867 until 1882, when the firm moved to 78–86 Trinity Pl. It is unclear which building was lit at this time. Griffiths 1959, 45, 50; Edison Electric Light Co. Bulletins 2:11, 14:19, 7 Feb. and 14 Oct. 1882; CR (*TAED* CBo02, CBo14; *TAEM* 96:672, 754).

Headed by Horace W. Thurber (d. 1899) and Francis Beattie Thurber (1842–1907), the importer, wholesale grocer, food processor, and coffee roaster H. K. & F. W. Thurber Co. endorsed Edison’s lights at their store on Reade Street where, after a trial run with a single Z dynamo, they quickly doubled to two, powering 120 lights. They doubled again by August and discontinued using gas lighting. By May 1883 there were 330 lamps in use at Thurber’s New York establishment and 60 at their canning factory in Moorestown, N.J. *Rand’s* 1881, 187, 237; *NCAB* 22:176; Obituary, *New York Times*, 22 July 1899, 7; Edison Electric Light Co. Bulletins 14:19, 8:8, 13:5; 14 Oct., 27 Apr., Aug. 1882, and 31 May 1883; CR (*TAED* CBo14, CBo08, CBo13, CBo18; *TAEM* 96:754, 698, 738, 827).

E. S. Jaffray & Co., a dry goods firm led by Edward Somerville Jaffray (1816–1892), installed 189 lamps at their main building located at 350 Broadway. Obituary, *New York Times*, 24 Apr. 1892, 5; *Rand’s* 1881, 161; Edison Electric Light Co. Bulletins, 5 and 27 June 1882, 10:3, 11:8; CR (*TAED* CBo10, CBo11; *TAEM* 96:714, 720).

The Hotel Everett, at 84–90 Chatham St., installed lamps in a dining hall, parlors, a reading room, and an office. Samuel H. Everett (1836–1914) ordered a larger plant of two L dynamo as well as a station for a new property on New York’s west side at about the same time. Edison Electric Light Co. Bulletin 5:2, 13:25; 17 Mar. and 28 Aug. 1882; CR (*TAED* CBo05, CBo13; *TAEM* 96:681, 738); Sherburne Eaton to TAE, 11 Aug. 1882, DF (*TAED* D8226ZBD; *TAEM* 61:380).

Aitkin, Sons & Co., a dry goods and importing house, lit their store at 873 Broadway with 120 lamps (Edison Electric Light Co. Bulletin 14:20, 14 Oct. 1882, CR [*TAED* CBo14; *TAEM* 96:754]; “Firms and Companies in New York City,” *New York Times*, 18 Sept. 1891, JS31). Max Ams Preserving Co. installed 63 lamps at their canning and packing business

at 372 Greenwich St. (*Rand's* 1881, 103; Edison Electric Light Co. Bulletin 14:20, 14 Oct. 1882, CR [*TAED* CBo14; *TAEM* 96:754]).