This volume chronicles Edison’s audacious attempt to replicate the success of his New York central station in scores of U.S. towns and cities, as well as in Europe and Latin America. It also encompasses profound changes in his working and personal life, including the unexpected death of his wife. It concludes with Edison returning to the laboratory and refocusing his energies on new inventions.

Having anticipated for a year the construction of a second district in New York City and orders for central stations in other cities and towns, Edison had grown frustrated as officers of the Edison Electric Light Company focused on orders for isolated plants. He now tried to develop the market for central stations by focusing on the less expensive “village plant” system he had conceived in the preceding months. In contrast to the Pearl Street model, the village plant system required less labor and less material to build. In addition, wires for most of these plants were placed overhead on poles, thus obviating the time and expense of burying underground lines. In order to develop the business of selling and building central stations in the United States, Edison established the Thomas A. Edison Construction Department with his trusted private secretary, Samuel Insull, managing its day-to-day business affairs while Edison focused on the design and construction of the plants.

Working eighteen- to twenty-hour days, Edison was traveling more widely and frequently in the United States and Canada in 1883 and 1884. On 4 July 1883, he opened the first three-wire incandescent electric light central station in Sunbury, Pennsylvania. Thereafter, Edison traveled to several other towns to oversee the building of central stations; six-
teen stations were underway before the end of 1884. He ad-
ditionally visited electrical exhibitions in Chicago, Worcester
(Mass.), Philadelphia, and Boston.

The unwillingness of company officials and financiers to
support the central station business had prompted Edison to
become, as he put it, “a business man for a year” as a builder of
small central station plants. However, the generally depressed
capital markets in New York and London affected his plans
at home and abroad. The continuing scarcity of capital, ag-
gravated by changes rippling through the network of investors
associated with Drexel, Morgan & Company, led Edison to
abandon that experiment with many of his plans unfulfilled.
Similar economic forces led to his grudging acceptance of
a merger with a rival in Great Britain and the virtual aban-
donment of that once-promising market for electric lighting.
While the Italian Edison company successfully inaugurated
central station service in Milan, efforts to establish central
stations stalled elsewhere in Europe. This led Edison to try
to develop new markets in South America, but, here too, he
achieved only modest success.

Although Edison is famous for devoting more time to work
than to his family, by the winter of 1884 he had grown tired of
the long hours and relentless financial pressures of the cen-
tral station business. Needing a break, Edison and his wife,
Mary Stilwell Edison, took a long vacation in Florida during
February and March. While enjoying the resorts and fishing
grounds of St. Augustine and the St. Johns River in Florida,
Edison seemed to be the typical tourist as he tallied up the
costs of travel expenses. But he was also uniquely Edison as he
took up ideas for new experiments in the midst of his leisure,
if not on account of it. During the trip, Edison filled a small
pocket notebook with a steady burst of new ideas, whether
on problems that occupied him for years, like lamp filaments
and multi-signal telegraphy, or on research that took him in
new directions, like the development of fuel cells and artificial
materials.

Edison’s return to business at the start of April, following
the vacation with Mary in Florida, marked the beginning of
a turbulent period in his personal and professional life. Soon
after their return, Mary’s father, Nicholas Stilwell, died after
what seems to have been a chronic illness. About the same time,
Edison decided to close up the Construction Department due
to its demands on his personal finances and because of worsen-
ing general economic conditions. Edison was having trouble
getting payment from the Edison Electric Light Company for more than $11,000 that he had paid from his own pocket for canvassing and estimating towns for central stations, most of which were never built. Edison Electric was itself feeling financial strain, exacerbated by the recent financial failures of two of its principals, Henry Villard and Egisto Fabbri, and by having to take stock in the local illuminating companies to which it sold operating licenses, rather than getting all the cash it originally expected. Edison faced similar problems in collecting monies from the local companies. In an effort to improve its financial outlook, Edison Electric also sought an interest in the manufacturing shops owned by Edison and his close associates. In order to resolve these and other questions concerning the future of the Edison lighting business, a series of negotiations took place that led to a consensus by mid-June for the Edison Company for Isolated Lighting to take over the central station business and for the Edison Electric Light Company to share in the profits of the manufacturing shops. A series of agreements formalized this arrangement on 1 September.

By that time, Edison was dealing with the personal crisis of his wife’s death and his desire to return full time to invention. Little is known of the circumstances, but Mary Edison died unexpectedly at their Menlo Park home on the morning of 9 August. The doctor in attendance reported only that she died of congestion of the brain, a general diagnosis based on symptoms that could result from several more specific causes. Newspaper reports later claimed that Edison sought to revive his wife using electricity, but to no avail. Daughter Marion remembered that she “found my father shaking with grief, weeping and sobbing so he could hardly tell me that mother had died in the night.” Marion also recalled driving her father around the countryside at least once a week during the rest of the summer, and for some time she became her father’s almost constant companion.

In the months preceding Mary’s death, Edison had been spending increasing amounts of time in his laboratory. And, just before she died, he told a reporter for the New York Daily Tribune, “I am going into original experimenting again. I’ll get out a new crop of inventions during the next year in the electrical line.” His interest in new inventions was further spurred in September, during his visits to the International Electrical Exhibition in Philadelphia with Marion. While there, he reconnected with his old friend Ezra Gilliland, to whom he “mentioned that his electric light was completed and prac-
tically off his hands and he was talking of what would be a good thing to take up next.” Gilliland was then in charge of American Bell Telephone’s experimental shop in Boston and during their discussions, Edison decided to turn his attention to improving transmitters for the company’s new long-distance lines.

As Edison worked on this and other problems for American Bell, he was also negotiating the terms of his contract with the company, which included resolving Western Union’s rights to his telephone inventions. The contract issues remained unresolved at the end of the year even though Edison traveled to Boston just before Christmas in an effort to finalize his agreement with the company. This was one of several trips Edison made to Boston during the fall in connection with his telephone work. It was also in December that Edison and Gilliland began to discuss developing the system of railway telegraphy that would become a subject of sustained research for Edison in the next year.

Determined to remove himself from active participation in the business of electric lighting, Edison, aided by Samuel Insull, sought to elect a new board of directors for Edison Electric. Toward this end, they hoped to acquire enough proxies from other stockholders to enable Edison, the company’s largest stockholder, to elect his slate of candidates in place of those proposed by the existing board. Before the vote took place on 28 October, a compromise was reached on the makeup of the board, and Sherburne Eaton resigned as president, although he remained as general counsel. Eugene Crowell was elected president in place of Eaton, but it was Edward Johnson, re-elected as vice president of Edison Electric and newly elected as president of the Edison Company for Isolated Lighting, who took charge of the day-to-day affairs of the company.

Having put Johnson and others that he trusted in charge of the Edison lighting business, Edison spent little of his own time on either the business or technology of electric light and power during the next year. Freed of these concerns, he returned full time to the laboratory to work on other inventions.

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