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OF

THOMAS ALVA EDISON

1847-1931

BY

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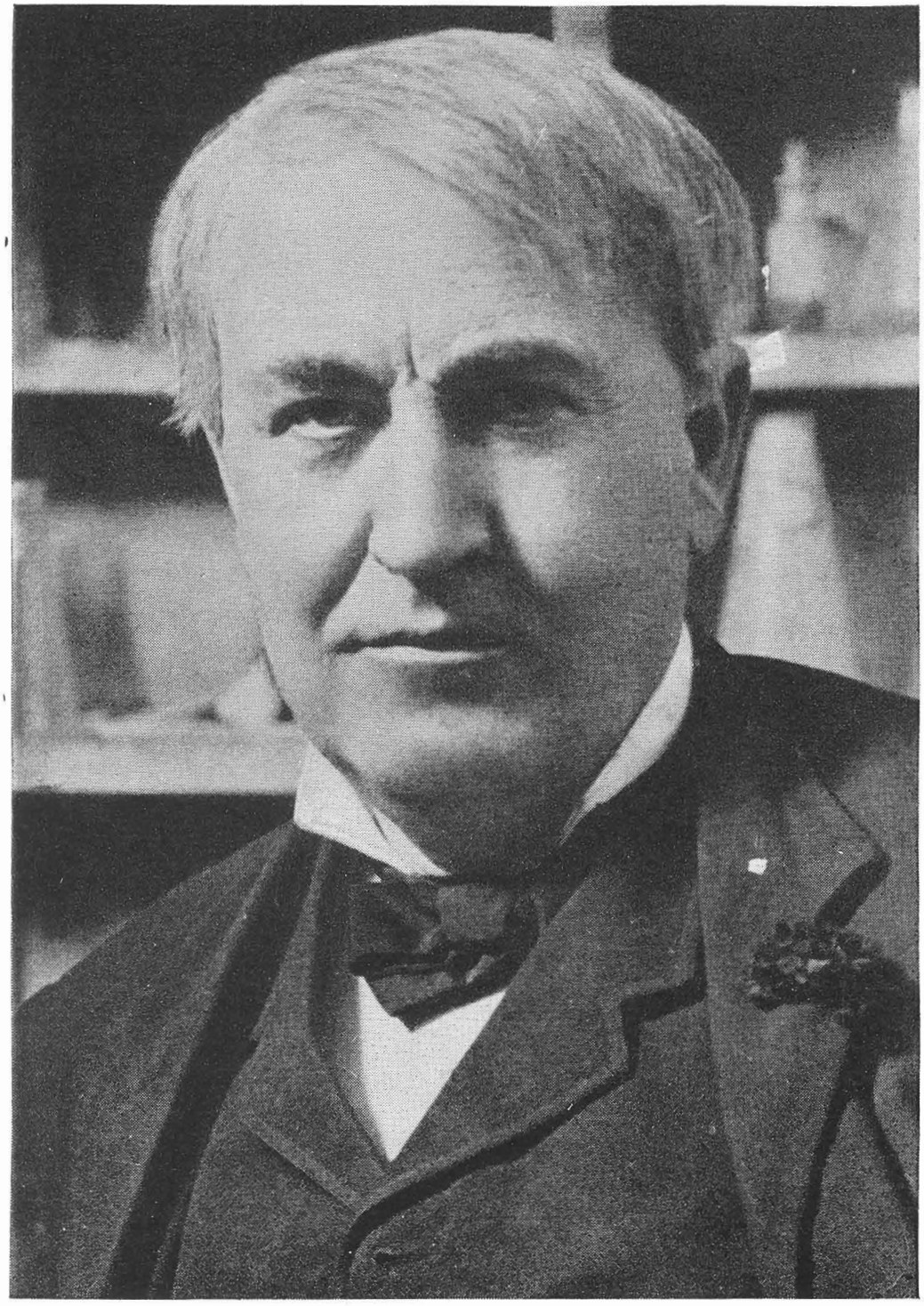

Thos A Edison.

THOMAS ALVA EDISON

Birth and Parentage

Thomas Alva Edison, probably the greatest inventor that America has produced, was born at Milan, Ohio, on February 11th, 1847.

According to family records, the paternal ancestor of the Edisons landed in New Jersey, from Holland, about the year 1730. The family on Edison's mother's side, the Elliotts, was of Scotch-English origin and settled in New England prior to 1700. The Edisons were a vigorous, hardy stock. The inventor's great-grandfather, Thomas Edison, lived to be 104 years old, John Edison, his grandfather (1750-1852), to 102, and Samuel Edison, his father (1804-1896), to 92. They were all men of endurance and strong physique. Great-grandfather Thomas took an active part against the British Government in the Revolutionary War of 1775-1781; while grandfather John Edison, who was a young man of 25 when the war broke out, sided with the loyalists. When the great exodus occurred in 1783, and many thousands of loyalists embarked for Canada, John Edison was among them. Father Samuel Edison was born at Digby, Nova Scotia, in 1804. John finally settled at Vienna, Ontario, close to the northern shore of Lake Erie, and there he remained, as a Canadian citizen, to the end of his life.

In 1828, Samuel Edison, the inventor's father, married Nancy Elliott (1810-1871), a school teacher at Vienna. She was a clever, brilliant and attractive woman, the daughter of a Baptist clergyman and granddaughter of Captain Ebenezer Elliott of Scotch ancestry, who fought on the American side in the Revolutionary war, and who finally settled at Vienna, Ontario, where he lived to an age of over 100 years.

In 1837, when political disturbance in Ontario culminated in rebellion against the British government, Samuel Edison, 33 years of age, tall and of strong physique, was fighting as a Captain in Mackenzie's insurgents. For the second time, the younger member of the Edison family found himself on the

side of a lost cause. Samuel Edison had to make his escape with his wife, through dangerous country, to the southern shore of Lake Erie. They finally settled at Milan, Ohio. Here three children were born: William Pitt, Tannie, and the subsequently famous Thomas Alva, the last named on February 11th, 1847. All three children showed ability, but that of the two eldest was of an artistic and literary character.

Boyhood (1854-1868)

When young Edison was seven years old, his family removed from Milan, Ohio, to Port Huron, Michigan, through which town the Grand Trunk Railroad had laid its tracks along the St. Clair River which separated Michigan from Ontario. The boy was good-natured and courageous. Most boys are well endowed with curiosity, but little Thomas seems to have had curiosity insatiable. He used to express surprise that the grown-up people round him were unable to answer his numerous questions. He spent three months at the Port Huron public school, that being all the formal schooling he ever had. As a scholar, he does not appear to have made a success. His mind was keen enough; but did not follow the grooves of school learning. His mother, who had been a teacher, and understood him, attended to his education herself. Under her guidance he became proficient in reading and writing. Arithmetic he never cared for. He soon revealed a great thirst for experimenting, and especially for chemical experimenting. He spent his pocket money on inexpensive chemicals, and his spare time in the family cellar, trying out their properties—to see if what the book said was true. Throughout his life, Edison never accepted a text-book statement as final, until it had been tried out.

When the boy was eleven years old, he commenced his first venture in business, by taking family garden produce to market in Port Huron, in a little horse wagon, with the aid of another lad. At twelve years of age, he applied for and secured a concession from the Grand Trunk Railroad to sell newspapers on the trains between Port Huron and Detroit (a distance of 100

km. or 62 miles). In this way he was able to gain more pocket money for chemicals and experiments. He not only kept up this newsboy work on the trains; but also extended it, by employing other boys as assistants on other trains, and opening two small stores in Port Huron, each operated by a boy companion. Later he transferred part of his stock of chemicals from the family cellar to the baggage car of the train on which he worked. He was very popular with the trainmen, who knew him as "Al". A photograph of little Al, at about fourteen years of age, shows a cheery, plucky lad, in a train-boy's cap, full of keen interest in the world. About this time, he purchased in Detroit a small hand printing press, with forms and type. He persuaded the train conductor to let him mount this in the baggage car, and so organized not only the first railway chemical laboratory; but also the first railway printing press, collecting the news, composing, setting, printing and selling the sheets, all himself. The circulation of this single sheet, "The Weekly Herald", amounted to 800 copies.

It was in 1862, when Edison was fifteen years old, carrying regularly an eighteen-hour workday, that an accident occurred which left him with a permanent deafness in both ears. Running over a rough piece of track, the baggage car, with its Edison corner laboratory, jolted to the floor a stick of phosphorus. This started a fire in the car that took all the efforts of Edison and the train crew to subdue. The conductor was so angered that he soundly boxed young Thomas' ears. When the train stopped, all the stock of the laboratory and printing press was thrown out on the station platform, to his great distress. In Edison's opinion, the injury to his hearing, that may have been caused by the cuffing, was intensified later, when a friendly trainman tried to help him climb on a baggage car, by pulling on his ears.

The slight deafness which came on after these events became permanent and gradually increased in later years. A man of lesser calibre might well have become morose by this infirmity; but it certainly did not have that effect upon Edison. His disposition remained throughout life, sunny, kindly and serene.

In fact, he used to claim that his deafness was an asset; since it permitted him to concentrate his thoughts upon any desired object of study, even among intensely noisy surroundings. It was a remarkable vindication against fate, when this partially deaf man later discovered, invented and perfected the phonograph.

In August, 1862, an incident occurred which changed the direction of young Edison's career. The train on which he was newsboy was at Mount Clemens Junction, where freight cars were shifted. A box car was being shunted, at considerable speed, to a side track. The station agent's little son, the two-year-old Jimmie Mackenzie, had strayed to play on this side track, right in the way of the oncoming box car. Young Edison on the platform saw the danger. Casting aside cap and bundles, he jumped on the track and reached the child just in time to haul him clear. As it was, one front wheel of the car struck his heel, and threw him with the child to the side of the track, on the stone ballasting. Their faces and hands were cut; but no serious injury had been incurred.

On the following day, Mackenzie offered to teach the lad Morse telegraphy, with a view to helping him secure, later on, a position as railway telegraphist. Edison accepted, and in a few months, taking lessons three times a week, between train times, together with practice at odd hours elsewhere, he attained proficiency at the key.

For the next six years, Edison followed the career of a telegraphist. During that time, he wandered, in the service of the Western Union Telegraph Company, through a number of cities in the middle west, and the south as far as New Orleans. He became noted as a rapid and accurate operator, frequently being assigned to press work on night duty. He adopted for this work a clear, fast and upright style of handwriting, which afterwards always characterized his penmanship. He spent all his available leisure in experiment and study. Faraday's "Electrical Researches" particularly interested him, owing to their close dependence upon experiment, their imaginative appeal,

and their freedom from mathematical symbolism. He also acquired, in the course of his journalistic daily work, and with his retentive memory, a large fund of general information.

Entrance to Edison's Career as an Inventor (1868-1876)

In October, 1868, when Edison was 21 years old, he applied for his first American patent—a vote recorder. This was a device which enabled the affirmative and negative votes of a seated voting assembly to be swiftly recorded and automatically totaled at the chairman's desk. Edison succeeded, after much effort, in demonstrating the invention at Washington, before the appropriate committee of Congress, only to find that there was no demand for a mechanism of that kind. Unsuccessful but undismayed, Edison returned to his little workshop in Boston. About this time he gave up the career of a telegraphist, and devoted himself entirely to invention. He commenced with an improved telegraphic "stock ticker." In 1869, when he went to New York, the nation was off the gold standard, as a result of the recent civil war, and the market ratio of gold bullion to government notes was constantly shifting in the "Gold Room" of the Wall Street Exchange. A transmitting instrument, not of Edison's design, operated from a keyboard in the Gold Room, issued the fluctuating gold quotations over wires to brokers' offices in the vicinity, each office having a dial-indicating receiver. On the third morning after his arrival in New York, Edison was standing near the transmitter, which, as a specialist, he had carefully examined, when it became suddenly deranged by an internal accident, thus throwing out of action all the indicators in the connected brokers' offices. In the ensuing tumult, he realized the nature of the derangement and volunteered to correct it. His offer was accepted, and he was able to restore normal operation very speedily. This led to his being made manager of the system, which he proceeded to improve and develop with new inventions. The new Edison Stock Ticker was a great advance in many respects over the earlier device, and brought him much renown.

Edison used to describe, from personal observation of the gold-quotation system in New York City, the sensational events of the financial panic on Black Friday, September 24th, 1869, when gold went to a high premium. Prices rose so rapidly that his system had difficulty in keeping up with the market. It was characteristic of him, that while he was for a number of months an operating personage in a continual stream of speculation, he never speculated himself, nor even felt any impulse to speculate. He was constantly at work, either in the office or machine shop, testing or improving.

A few days after Black Friday, he entered into the first recorded American firm of Consulting Electrical Engineers, under the title of Pope, Edison and Company, 80 Broadway, New York.

After the successful sale of some of his inventions to the Western Union Telegraph Company, Edison opened machine shops at Newark, New Jersey, for invention and manufacture. He kept 50 workmen busy, and when orders came in heavily, a night force also. He served as foreman for both gangs, which meant living on the premises and taking short periods of sleep at odd intervals during the twenty-four hours. Here he developed a number of telegraph inventions, in particular, the quadruplex for sending and receiving four messages simultaneously over a single wire—two in each direction—, and the high-speed automatic telegraph. During the Newark period (1870-1876) he took out nearly 120 American patents, almost all in electric telegraphy.

In 1871, Edison married Mary G. Stillwell, by whom he had three children, Marion E., Thomas A., and William L. Edison.

Menlo Park Period (1876-1884)

Edison moved his laboratory from Newark in 1876, to Menlo Park, New Jersey, a small village on the Pennsylvania Railroad between Rahway and Metuchen, New Jersey, where he could concentrate on invention; since he found the combination of invention and manufacture too strenuous, even for his energetic temperament. This was the year of the Centennial

Exhibition at Philadelphia, at which the new Bell telephone was first shown to the public. The original Bell telephone apparatus did not have a satisfactory transmitter, and Edison, after much experimental labor at Menlo Park, produced a carbon-button transmitter that virtually converted the telephone from an experimental to a commercially available apparatus. It was in his experimenting with the carbon transmitter, that Edison coined the now well-known call word "Hello", which spread out from Menlo Park until it became adopted by telephonists all over the world. He also invented about this time, in Menlo Park, a new ingenious non-magnetic type of telephone receiver; since he was prevented from using the Bell electromagnetic receiver. It operated on the principle of electrolytically varied friction between two conducting surfaces in rubbing contact. This instrument, called the electromotograph receiver, had certain advantages in special cases, and produced very loud sounds; but did not come into extensive telephone use.

In 1877, Edison discovered and developed the first stages of his phonograph or talking machine, which was justly regarded as a great wonder at that time. Owing to the pressure of other inventions, however, he was reluctantly compelled to set this instrument aside for a time, and leave its further development to later years.

In 1878 he took up the inventive problem of "subdivision of the electric light". At that time the arc light, originally discovered by Davy in 1809, had been developed and had come into commercial use for the illumination of halls and streets; but it was too powerful for interior use, and the problem therefore was to substitute a number of small electric lamps for a single arc lamp. A number of inventors had already experimented with glow lamps or incandescent lamps; but no successful result had been achieved. Edison realized that a commercial incandescent lighting system would require its lamps to be connected "in parallel", between the main conductors, like the rungs of a ladder, and not "in series", or end-to-end connection, as had been the leading idea. This required that each lamp

should have a long, thin, high-resistance filament, a condition that greatly increased the difficulties of the problem. After a vast number of failures, his first partially successful lamp had a filament of carbonized cotton thread, mounted in a highly evacuated glass globe, with sealed-in platinum-wire leads. This lamp, in October, 1879, glowed for 45 hours before breaking. After that, success was gradually reached. It came through overcoming, in succession, a large number of small difficulties, any one of which could have destroyed the project.

A new industry had then to be created from the Menlo Park laboratory results. A lamp factory, a dynamo factory, factories for making operating instruments, testing instruments, main conductors, etc., all had to be set up and standardized. The early lamps were all operated by voltaic batteries, and although there were dynamos for operating arc lamps, there was none in existence for operating incandescent lamps in parallel. Such dynamos had to be designed and built. These were at first driven by leather belts from the standard low-speed steam engines of that period, the speed of which, although satisfactorily steady when driving factory machinery, fluctuated appreciably when used for incandescent lighting service. Edison realized that these belts could not be used in permanent reliable central stations; so new types of high-speed engines, with heavier fly-wheels, had to be developed for coupling directly to the dynamo shafts. After a number of small incandescent-lighting plants had been successfully set in operation, it was decided to open a central incandescent station in the center of the down-town business district of New York City, at 257 Pearl Street, with underground conductors. In all of this work, Edison was his own chief engineer.

The Pearl Street Station turned on its current to the lamps in the district, September 4th, 1882. It was successful from the first, the system gradually expanding over the whole of New York City. Although domestic gas lighting was then generally used, the new incandescent lamps won popularity through their steadiness, coolness, freedom from combustion products, and reduced fire hazard. About the same period, Edison incan-

descent-lighting stations and systems began to be developed all over the world.

Edison foresaw that the successful introduction of the incandescent lamp into factories and homes would immediately admit the use of the electric motor for operating machinery and household power devices. A few motors had already been employed on constant-current series-arc circuits; but the constant-speed self-regulating motor, taking power from constant-voltage mains, could not be produced until the incandescent lamp led the way. The first Edison motors were operated at Menlo Park in 1880, and rapidly developed on the Edison three-wire systems, and in Sprague electric-railway systems.

There were several standard characteristics of the Edison system worked out at Menlo Park, that have remained but little changed to this day. One of these was the lamp voltage, which he early set at or near 110 volts. A second standard was an inter-connected system of underground iron pipes, carrying within the insulated copper conductors which supplied the lamps. Edison realized that all these wires must go underground in large cities, and he faced the mechanical and electrical difficulties of that procedure, which were initially very great. The third characteristic was the invention in 1880 of an important division of the underground conductors into two classes: i. e., mains, which exclusively supplied the lamps, and feeders, which exclusively supplied the mains. By this means, a large saving was made in the total weight and cost of the copper conducting system. The fourth, very soon after the starting of the Pearl Street Station, was the invention of the "three-wire-system", by which, although the conductors in the system were increased throughout from two to three, yet the total amount of copper in the system was again reduced to about one-third; because all the conductors could be considerably reduced in size.

The demands of the electric light and power industry on Edison's time were so great that during his stay at the Menlo Park laboratory, he could give but little attention to the new discoveries and inventions which he was constantly making.

One of these discoveries was in 1883—the "Edison effect"; i. e., a discharge phenomenon that occurred in the lamps, when being exhausted; whereby a gaseous discharge passed from the glowing filament to the positive filament clamp, and also produced a deposit on the inner surface of the glass bulb. In later years, Fleming, De Forest and others developed this into the thermionic tube, now so widely used. Another discovery, which he made at Newark in 1875, was a device for generating and detecting high-frequency electric waves, such as Hertz investigated in 1889, and which later gave rise to modern radio telegraphy. Edison's generator was a vibrating-contact induction coil, or even an electric trembling bell, with one terminal connected to water-pipe ground. The receiver was a small wooden dark box, in which the opposed electrodes, consisting of graphite pencil points, could be brought into adjustable close proximity. When one electrode was connected to ground, and the other to any short open wire, small sparks could be seen to pass between the minutely separated carbon points in the dark box, if the latter was in the same building as the generator, or in some adjacent building. These results were so different from those ordinarily associated with electrical circuits, that Edison thought they might be some new phenomena, which he called "Etheric force". It required long researches of later years, in various countries, to link Edison's experiments of 1875 with electromagnetic waves and radio communication.

Llewellyn Park Period (1887-1931)

Edison moved his laboratory from Menlo Park to New York City, after his wife's death at Menlo Park, in August, 1884, and he gave up his home there soon afterwards. In 1886, he married Miss Mina Miller of Akron, Ohio. They made their home at Glenmont, Llewellyn Park, West Orange, New Jersey, and there they lived for the rest of his life. Their three children are Madeleine, Charles and Theodore. Edison built a commodious laboratory in West Orange, New Jersey, close to Llewellyn Park, and commenced work there in October, 1887.

At Orange, Edison perfected the phonograph, and made a long series of inventions, including the alkaline storage battery, the moving-picture camera, synthetic rubber, the telescribe, the magnetic ore separator, various improvements in manufacturing concrete and other chemical products, as well as many war inventions for the United States Government. The list of these Orange laboratory inventions is so long that it cannot be attempted here. For instance, he developed his moving picture camera until he obtained some satisfactory reels of sporting contests. The moving picture industry of today acknowledges its start at the Orange laboratory.

Personality

The outstanding qualities with which Edison impressed those who met him, were energy, frankness, courage and kindliness. He was tall, and powerfully built, with a large head and a countenance open and engaging, but leonine in repose.

He was a terrific worker, especially before his fiftieth year. He would often work at his laboratory or factory for twenty hours at a stretch, with only brief pauses for meals, concentrating on one study at a time. His assistants worked in the same way, and he did not spare them, because he never spared himself. It was not that he actually dismissed assistants who did not work hard; it was the easy-going assistant who dismissed himself and disappeared from the picture. When engaged on some difficult problem like the incandescent lamp, he and his staff worked together days, nights, Sundays and holidays, until they became unmindful of time. He was able to infuse them with his own enthusiasm.

When working regularly at a less feverish pace, he secured recreation from change of work. Above all things, he loved to invent some new or better thing than the thing he saw. He ordinarily carried about in his pocket a standard small-sized yellow-page notebook that might last a week. On the successive pages of this he would write down inventive ideas as they occurred to him, usually with some small illustrative sketch or sketches, together with the date and subject. He would stop

in the middle of a meal or conversation, or immediately on awaking, to write out an invention. In the course of a day, he might make twenty such rough designs. They might be nearly all in the same field; or they might differ greatly, depending much upon his surroundings during that period. One or two of these he would proceed to try out himself. The others he would probably distribute among his assistants to try out. He was ever incredulous about any invention that worked out successfully on the first trial, and always wanted to know what was the outstanding difficulty to be overcome. He was unfailing in encouragement and sympathy when difficulties beset an assistant's path, and suggested methods of surmounting them. Many of his first-sketch inventions proved to be impracticable, often for commercial reasons, and he did not expect more than a small percentage to survive laboratory tests; but fertility of imagination ran through them all. Moreover, he never sought to patent any process of which the inventive idea was not his own. More than one thousand American patents were issued to him during his career; but these were only for the residual inventions that he selected as probably workable and economically capable of self support. The vast majority never got beyond the notebook or the laboratory stages.

His method of attacking an inventive problem of major importance was always the same. He would attempt nothing until he had a clear comprehension of the existing state of the art, preferably from watching the latest process, or examining models; but otherwise by reading up the literature of the art. His memory for facts was most retentive, and he had acquired a habit of reading ordinary descriptive text by the line, instead of by the word, so that he could run through reports and pamphlets at great speed. He would then lay out in his notebook several plans for simultaneous experimental attack. As a confirmed optimist, he never doubted that an open path could be found for reaching the desired goal, provided that every possible plan was tried, regardless of established opinion or textbook authority.

His patience and tenacity in following up experimental improvements were most remarkable. He seemed to defy discouragement. He would spend weeks at a time on the improvement of the phonograph, teaching it, as he said, to say "specie". The delicate sybillant associated with the *c* was difficult for the instrument to render. It would return the word as "spee—ee". He succeeded finally to his satisfaction, but not without trying a very large number of devices.

In temperament he was simple, modest, direct and kindly. It was impossible for him to pose or assume airs. Although his practical knowledge was extensive in many branches of science, he never claimed to be more than an inventor. With the alertness of his active mind, he tended to take a definite opinion on any proposition that might be presented to him; but he would listen very tolerantly to opposite views, and give way pleasantly to facts or demonstration. In general, however, his views proved to be reliable and based upon experience. He possessed a certain charm of manner which endeared him to his associates. Furthermore, he had the rare gift of securing the mutual good will of his assistants; so that dissension among them was very exceptional. It is generally admitted that he won esteem and goodwill everywhere. His only detractors have been those who did not know him personally.

As an evidence of the loyalty of Edison's associates to him personally, it may be pointed out that, in 1918, a voluntary association was formed, called the "Edison Pioneers". The members are "Those persons who were associated with Thomas A. Edison, or connected with his work up to and including the year 1885." Associate members are those who came later (1886-1931, inclusive). The Edison Pioneers meet annually in New York City on Mr. Edison's birthday. At the present date (1932), there are 100 members and 136 associates. This memoir has been prepared with the help of the organization.

At public receptions, he was shy and retiring. He dreaded to be called upon to make a speech. In private life, however, he showed a remarkable talent for humorous narrative, and he

enjoyed listening to a good story. His life was a happy one. He was of very temperate habits, except in regard to hours of work. To the acquisition of wealth he was indifferent, except for the opportunities it brought for more inventions and accomplishments.

Honors and Awards

After his invention of the phonograph in 1877, honors came to Edison with increasing rapidity. The following honorary academic degrees were conferred upon him: Ph.D. Union College, 1878; D.Sc. Princeton, 1915; LL.D. University of the State of New York, 1916.

The following is a partial list of his medals and decorations:

Legion of Honor, France, Chevalier 1879, Officer 1881, Commander 1889.

American Institute of the City of New York, Medals of Superiority, for Electric Pen, 1878, for Multiplying Press, 1878. Medals of Excellence for Chemical Telephone, 1879. For Carbon Telephone, 1879.

Cross of Grand Officer (Count) of the Crown of Italy, 1889.

Rumford Gold Medal, American Academy of Arts & Sciences.

Albert Medal of the British Society of Arts, 1892.

Honorable Consulting Engineer, St. Louis Exposition, 1904.

John Fritz Gold Medal, 1908.

Rathenau Gold Medal (Germany), 1913.

Civic Forum Gold Medal, 1915.

Medal of the Franklin Institute, Philadelphia, 1915.

President of the Naval Consulting Board, 1915.

Distinguished Service Medal of the United States Navy Department, 1920.

First Recipient of Edison Medal of American Institute of Electrical Engineers, New York City, 1923.

Membership in National Academy of Sciences, Washington, D. C., April, 1927.

Society of Arts and Sciences Gold Medal, 1928.

Congressional Gold Medal, 1928.

Patents

The following is a list of 1,091 American Patents granted by the United States Patent Office to Edison during his career. They are listed according to the numbers whose applications were executed by him in each successive year between 1868 and 1928, inclusive, representing over sixty years of inventive activity. The individual titles of these applications up to the year 1926 are recorded in the Biography of Dyer, Martin and Meadowcroft (Bibliography No. 1). During the same working period he also had received up to 1910, 1,239 foreign patents, distributed among 34 foreign countries.

No. of patents granted	Date executed
1	1868
4	1869
7	1870
8	1871
38	1872
25	1873
15	1874
11	1875
12	1876
20	1877
14	1878
14	1879
60	1880
89	1881
107	1882
64	1883
24	1884
17	1885
29	1886
19	1887
45	1888
27	1889
36	1890
35	1891
5	1892
5	1893
0	1894
0	1895
1	1896
12	1897
9	1898
11	1899
22	1900
12	1901
20	1902
17	1903
18	1904
30	1905
18	1906
19	1907
24	1908
12	1909
20	1910
23	1911
19	1912
4	1913
6	1914
2	1915
5	1916
4	1917
1	1918
16	1919
4	1920
1	1921
3	1922
6	1923
7	1924
5	1925
5	1926
2	1927
2	1928
1091	Total

Chemical Manufactures

In addition to factories for producing dynamos, motors, incandescent lamps, etc., Edison designed and operated plants for the manufacture of cement, benzene, carbolic acid, myrbane aniline oil, aniline salt and paraphenylenediamine. A number of these plants were established temporarily for military purposes during the great war, but others are still in operation.

Termination

The long, industrious and internationally famous career of Edison terminated by his death at 8:24 world time (Greenwich Civil Time) on the 18th of October, 1931, in the 85th year of his age at his home in Glenmont, Orange, New Jersey. President Hoover, receiving the news on the battleship "Arkansas" in Chesapeake Bay, issued by radio a nation-wide commemorative address.

On the evening of October 21st, 1931, following his interment, being also the fiftieth anniversary of his effective invention of the successful incandescent lamp, at the suggestion of President Hoover, the Central Station system lights were switched off for one minute over extensive areas of the North American continent—the United States and Canada—as a nation-wide tribute to the great inventor.

Posthumous Honors

Shortly after Mr. Edison's death, a number of memorial meetings were held in different countries in honor of his life and accomplishments. At these meetings resolutions were recorded.

Thus, the Committee on "Production and Application of Light" of the American Institute of Electrical Engineers, in its annual report for 1932 (*Electrical Engineering,* June, 1932, pp. 447-453), concluded with the following statement:

"The Committee on Production and Application of Light cannot conclude its report without allusion to the passing of the founder of the electric lighting industry. His death on October

18, 1931, was the signal for an expression of world-wide appreciation of the services and of the life of the man whom electrical engineers have held in high regard by reason of his inauguration of electric light and power as a widespread service to the public. Edison passes but his work goes on. He lives in the esteem of those who carry on under the banner which he raised."

The Chekoslovakian National Committee of the International Electrotechnical Commission transmitted the following resolution to the Central Office in London:

"The Chekoslovakian Committee has the honor to present in the name of all the scientific and technical bodies in Chekoslovakia, the following proposition:

'That the name of the great American inventor Edison should be assigned to an electrotechnical unit.'

"The Chekoslovakian Committee hopes that this motion may be accepted by all the National Committees who desire to express their gratitude to the genius of T. A. Edison."

Partial List of Edison Biographies

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"Edison, the Man and his Work," by George S. Bryan, A. A. Knopf, 1926, 330 pp., Illus.

"Thomas Alva Edison, Sixty Years of an Inventor's Life," by F. A. Jones, T. Y. Crowell and Co., N. Y., 362 pp., Illus.

"Thomas A. Edison, Benefactor of Mankind," by F. T. Miller, J. C. Winston Co., Phila., 1931, 320 pp., Illus.

"Edison Honored Throughout the Entire World," Association of Edison Illuminating Companies, 1929, 63 pp., Illus.

"Thomas Alva Edison," Addresses delivered at the Presentation of the Congressional Medal, Oct. 20, 1928, Illus.

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