

30:14

Wilhelm Konrad Roentgen, the German physicist, announced his discovery of the X-ray in 1895. Machlett, one of the few men in the United States equipped to do research in this field, began experiments to reproduce Roentgen's results. He had recently perfected a mercury pump capable of producing a high vacuum and in 1898 he succeeded in constructing one of the first practical X-ray tubes made in America. Thereafter he devoted much of his time to X-ray tube work, developing many tubes, each an improvement over its predecessor, which were extensively used in the medical profession. These included the first water-cooled tube (1901-02); the Piffard safety tube, the first X-ray proof tube (1904), which became the standard tube for treatment; the Cornell treatment tube (1906), and the Bellevue tube (1907), the first X-ray tube for interrupterless transformer. He also perfected the first mercury switch, which provided automatic control of elec-

R. Machlett, at Springdale, Conn., in 1931. Machlett was a member of the Masonic order and the Liederkranz Club of New York city. In religion he was a Lutheran and in politics a Democrat. He became a naturalized American citizen in 1898. Serious and studious, once he adopted an idea he clung to it with inflexible determination and courage. Thus, through years of suffering induced by his pioneer scientific work, he continued his efforts to serve humanity. He liked bowling, hunting and fishing, although music, especially singing, provided his chief relaxation. Machlett was married in New York city, Apr. 27, 1898, to Paula Anna, daughter of Joseph Hoering, a wheelwright, of Neustadt, Austria, and had two children: Ella Clara, who married Richard William Schnier, and Raymond Robert Machlett. He died in Liverpool, England, June 1, 1926.

VANDERBILT, William Henry, financier and railroad operator, was born in New Brunswick, N.J., May 8, 1821, son of Cornelius and Sophia (Johnson) Vanderbilt. His first paternal American ancestor of record was Jan Aertsen Van Der Bilt, who came from Bilt, or der Bilt, Friesland, Holland, about 1650 settling first in Flatbush, Long Island, and later in Bergen, N.J. From him the descent was through Jacob Janse and Mary Van Der Vliet; Jacob and Neeltje Denyse; Jacob and Mary Sprague, and Cornelius and Phoebe Hand, the grandparents of William H. Vanderbilt. His father (q.v.) was the transportation magnate, commonly known as Commodore Vanderbilt. He was educated at public schools in New Brunswick and New York city and Columbia grammar school in New York. At the age of eighteen he became a clerk in the private banking house of Drew, Robinson & Co., New York city, headed by Daniel Drew (q.v.). He advanced rapidly but in 1842 his health failed and his father, who had little faith in his business ability, settled him on a 70-acre tract of unimproved land near New Dorp, Staten Island. Within a short time the farm was returning such a good income that he was able to raise a mortgage of \$6000 and increase his holdings to 350 acres. During the depression of 1857 the 13-mile Staten Island railroad was forced into bankruptcy and he was appointed its receiver. He began at once to show his ability as a railroad executive and in two years reorganized the road on a sound basis, paid off all claims and, by an independent ferry boat line, connected it with New York city. He was then elected president of the company. The road was sold under foreclosure in 1872, incorporated a year later as the Staten Island Railway Co. and acquired at that time by the Baltimore & Ohio Railroad Co. Meanwhile his father had come to recognize his ability, and when the Commodore began his railroad operations William H. Vanderbilt became his principal adviser and lieutenant. Elected vice president of the New York & Harlem Railroad Co. in 1863 and the Hudson River Railroad Co. in 1865, he recommended the purchase of the New York Central railroad, becoming vice president of the consolidated New York Central & Hudson River Railroad Co. in 1869, and he insisted on the extension of the Vanderbilt system to Chicago, resulting in the acquisition of the Lake Shore & Michigan Southern, Michigan Central and Canada Southern railways. He was largely responsible for the building of the first Grand Central terminal at 42nd street and Park avenue in New York city, opened Oct. 8, 1871, and he had personal charge of the construction of the cars and arrangement of the schedules for the



tric circuits. As a result of his pioneering and continuing efforts in this field Machlett became one of the world's largest manufacturers of X-ray tubes and during the first World war he supplied from 2000 to 3000 a year to the Entente allies. He also manufactured thermos bottles and with Dr. Isidor Clinton Rubin he perfected the Rubin apparatus by which a woman's fallopian tube can be dilated so that she may bear children. In his early experiments with X-ray tubes Machlett exposed himself continually to the destructive X-ray, thereby suffering the burns which ultimately caused his death. He received world-wide recognition in 1936 when a monument was erected at the Roentgen institute, St. George's hospital, Hamburg, Germany, and his name inscribed thereon as one of the 160 heroic pioneers of eleven nations who had sacrificed their lives in research on the X-ray. His work has been further commemorated in the achievements of Machlett Laboratories, Inc., founded by his son, Raymond

New York Central's celebrated "Fast Mail" trains, which were placed in service, Sept. 14, 1875. These trains, operating on a 26-hour schedule between New York and Chicago, were the most ornate and spectacular America had seen up to that time and carried the mails faster than they had ever before been transported over such a distance. Painted in gleaming white, striped in buff and resplendent with gold trimming and lettering, they attracted much attention as they sped over the rails linking the two cities. On the sides of each car were emblazoned the words "Fast Mail," the illuminated shields of the U.S. government and the post office department, and the name of the state through which the railroad ran. Congress having refused aid, the "Fast Mail" was discontinued in 1876. Upon the death of his father in January 1877 he succeeded to the presidency of the New York Central & Hudson River Railroad Co. and its controlled and affiliated lines. He proved to be an extraordinarily able railway executive and under his guidance the Vanderbilt lines were expanded by many thousands of miles and their properties greatly improved and despite successive rate wars with various competitors the Vanderbilt system became one of the largest and most prosperous transportation enterprises in the country. Among the railroads brought within the orbit of Vanderbilt control and direction during this period were the Chicago & North Western; Cleveland, Columbus, Cincinnati & Indianapolis ("Big Four"); New York, Chicago & St. Louis ("Nickel Plate"); Philadelphia & Reading; Central Railroad of New Jersey, and the New York, West Shore & Buffalo (later West Shore). Through J. P. Morgan & Co. Vanderbilt sold 250,000 shares of his stock in the New York Central to a British and American syndicate for \$30,000,000 in 1879. Later he sold more of his holdings and in 1883 he resigned as president, but as chairman of the board continued to dominate the entire Vanderbilt railroad empire until the hour of his death. At one time he also held the controlling interest in the Western Union Telegraph Co. but he resigned as a director and sold his stock in 1881. In 1882, in a newspaper interview, in response to the question whether a certain New York Central train was run for the public benefit, he made the famous remark, "The public be damned," which was destined to plague for years to come the heads of railway and other great capitalistic organizations. This expression, however, uttered in a moment of extreme provocation, seems not to have been a true reflection of Vanderbilt's opinion and policy, as he strove earnestly to create harmonious relations between the New York Central and the public it served. He also sought to improve the company's relations with labor and when in the great railroad strike of 1877 the New York Central employees, despite wage cuts, refused to participate, he distributed \$100,000 among them in appreciation of their loyalty. Under the terms of his father's will, William H. Vanderbilt inherited the bulk of the Commodore's estate (leading to a notable will contest) and under his skillful management this estimated \$60,000,000 fortune grew to some \$200,000,000. He did not, however, seek wealth for itself alone, and there were many testimonials to his generosity and public spirit. Shortly before the collapse of the brokerage firm of Grant & Ward in May 1884 he loaned \$150,000 to Gen. Ulysses S. Grant. When Grant was unable to make repayment he sent to Vanderbilt as security his swords, medals,

gifts from foreign governments, art works and the deeds to certain real estate, the return of which was continually refused by Grant's family. Finally Vanderbilt proposed that all the property be restored to Mrs. Grant on condition that it go to the National museum in Washington, D.C., on her death, and this arrangement was accepted just before he died. He gave to Vanderbilt university a total of \$400,000, including \$10,000 to the library and \$100,000 to the theological school, and in 1884 he donated \$500,000 for land and buildings to the College of physicians and surgeons in New York city. He also gave \$50,000 to St. Bartholomew's (Episcopal) Church, New York city, of which he was a vestryman for twenty years, and restored the Moravian Church at New Dorp, Staten Island, where his parents had worshipped. When the Khedive of Egypt presented to the U.S. government in 1879 the obelisk known as Cleopatra's Needle he provided \$103,000 for its transportation and erection in Central park, New York city, accomplished finally on Jan. 22, 1881. By the terms of his will \$1,000,000 was distributed to Protestant Episcopal missions, the Y.M.C.A., St. Luke's hospital and the Metropolitan museum of art in New York city. His New York residence, which was one of the show places of the city, housed what was considered to be the finest private collection of paintings in existence. From his father he inherited a love of horses and he owned a number of famous race horses and some of the best trotters in the country. Vanderbilt was a man of commanding presence and had a rugged, dominating personality, which was refined by much social charm. He was always affable and gracious, never patronizing or discourteous, and was simple and temperate in his tastes and habits. With these qualities he combined exactness, tact, swiftness in decision and action and great industry—attributes which made him in his own right one of the foremost captains of industry of his generation. He was married, Sept. 28, 1840, to Maria Louisa, daughter of Samuel Kissam, a Dutch Reformed clergyman, of Brooklyn, N.Y., and they had nine children: Cornelius (q.v.); Margaret Louisa, who married Elliott Fitch Shepherd; Allen (died in infancy); William Kissam (below); Emily Thorn, who married (1) William Douglas Sloane (below) and (2) Henry White (q.v.); Florence Adele, who married Hamilton McKown Twombly (below); Frederick William (q.v.); Eliza Osgood, who married William Seward Webb (q.v.), and George Washington Vanderbilt (q.v.) William H. Vanderbilt died in New York city, Dec. 8, 1885.

VANDERBILT, William Kissam, financier, was born at New Dorp, Staten Island, N.Y., Dec. 12, 1849, son of William Henry (above) and Maria Louise (Kissam) Vanderbilt. He was educated at local schools and in Geneva, Switzerland. On his return to New York city he entered the office of Charles C. Clarke, treasurer of the Hudson River railroad. There he learned bookkeeping and progressed through various clerical grades until he was capable of filling positions of trust and responsibility in connection with the Vanderbilt system. He was second vice president of the New York Central & Hudson River Railroad Co. from 1877 to 1883, president of the New York, Chicago & St. Louis Railroad Co. from 1882 to 1898 and chairman of the board of the Lake Shore & Michigan Southern Railway Co. from 1883 to 1898. He was also a director and one of the active heads of the Michigan Central Railroad Co., New York Central Railroad Co., West Shore Railroad Co., Pittsburgh & Lake Erie Rail-