

## John J. Carty

(A'90, M'03, F'13, member for life)

**President 1915-16**

**Honorary Member 1928**

**Edison Medalist 1917**

**John Fritz Medalist 1928**

BECAUSE of his innumerable contributions to the art of telephony, John Joseph Carty ranked from the pioneer days of the telephone until his death in 1932 as one of the world's foremost telephone engineers. He was a prolific inventor and a skilful organizer of the inventive genius of others. Three of his early achievements are fundamental and necessary today: the invention of the "common battery," development of the high resistance bridging signal bell for subscribers' substations, and the discovery that the principal cause of cross interference between telephone circuits was electrostatic rather than electromagnetic unbalance. The accomplishments of his later life and for which he is best known in the field of electrical communication are those of a generalissimo—the organization and direction of long distance telephony over land, transoceanic radio telephony and coördination of the maze of factors which make telephony today so marvelously easy.

General Carty was born in Cambridge, Mass., April 14, 1861. He was obliged to forego a formal higher education because of a temporary impairment of vision. His tremendous knowledge he secured through original research, experience, scientific read-

ing and, as he expressed it, "asking questions." In 1879, when he was 18 he entered the employ of the Telephone Dispatch Company of Boston. There he designed and installed the first metallic circuit multiple switchboard to be put into service.

In 1887 he was transferred to New York and placed in charge of cable manufacturing for the Western Electric Company in the East and later in charge of switchboard development and manufacture, making a number of improvements in the design and installation of cables and switchboards.



Two years later he went to the New York Telephone Company as electrician; later he became chief engineer. Under his direction the New York City telephone plant was converted from open wire to cable, and from the local battery switchboard system to the common battery system.

He was chief engineer of the American Telephone and Telegraph Company from 1906 to 1909, when he was elected vice-president. He consolidated all the laboratories and experimental work into a single organization known now as the Bell Telephone Laboratories. Under his leadership the transcontinental telephone line was completed in 1915; a successful demonstration of wireless telephony was made and the underground cable system from Washington to Boston was completed. In 1925 he became chairman of the board of directors of the organization, retiring in 1930, about 2 years before his death on December 27, 1932.

When the United States entered the war General Carty was a major in the signal corps reserve; he organized the research and inspection division for the chief signal officer of the American Expeditionary Forces. He was responsible for the maintenance of transatlantic communication between General Pershing and Washington and directed the construction of a long distance telephone system covering most of France. In 1918 he was promoted to colonel and ordered to France as chief signal officer. After the Armistice he was placed in charge of communications for the American Commission to Negotiate Peace. Later he was made Brigadier General and still later, General. He received the Cross of the Legion of Honor of France.