Society of Wireless Pioneers - California Historical Radio Society

The McCarty Wireless Telephone---I

By ROBERT O'BRIEN

The contributions San Francisco and the Bay Area have made to modern life are pretty impressive, when you come to add them up. Not all of them are of towering significance, it is true, but all of them seem here to stay.

The Martini, Vesuvius of cocktails, for instance, was first concocted in a Montgomery street bar. The ice cream brick was invented in a confectioner's shop at Sutter and Powell. The cable car, of course, was invented in San Francisco and so (as we discovered a little while ago) was the slot machine.

The first controlled flight in a heavier-than-air flying craft was made at Santa Clara. The first motion pictures were made at Palo Alto and Sacramento. And, in a detailed and dramatic story in The Chronicle's Television Edition a year ago, Neil Hitt told how Philo Farnsworth transmitted the first picture through the air by electronic television, from Telegraph Hill to the Merchants' Exchange building a mile away, in 1930.

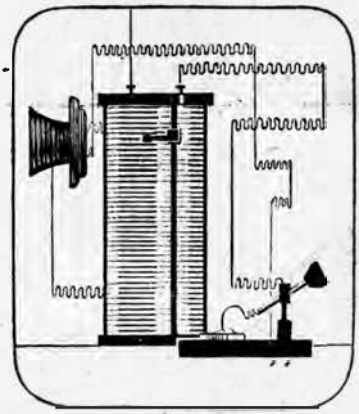
Buried in the newspaper files and in the memories of a few San Franciscans is the story of a rather amazing addition to this list—the invention of the wireless telephone.

In 1902, six years after Marconi conducted his first successful experiments in wireless telegraphy, a 14-year-old inventor transmitted his voice by wireless telephony across Stow lake, in Golden Gate Park.

The next year he broadcast from his home laboratory at Gough and Grove streets to a receiver atop Mt. Olympus, a distance of at least two miles.

In 1905, he invited newspapermen to witness his experiments. From a transmitter in the carpenter shop of the Cliff House, he talked and sang five songs into a microphone. They were heard distinctly a mile south in the Cyclers' Rest, which was on the ocean side of Great highway, opposite the Beach Chalet.

In all his demonstrations, he used a microphone and a receiver, and the principle of the Hertzian wave, which had led Marconi to the discovery of the wireless telegraph. He did not have the thermionic triode, or audion tube, which Lee de Forest invented in 1907, and which made wireless telephony a practical means of communication. But, so far as is known, this lad, this apprentice electrician who left school at the age of 12, was the first person in



the world to demonstrate that the voice could be transmitted by wireless.

Wrote The Chronicle's reporter cautiously after the Cliff House test:

"If the experiments made yesterday on the beach below the Cliff House may be used as a basis of speculation, it appears that a San Francisco boy just past 17 has solved the problem which gray-bearded scientists declared impossible of solution.

"The boy believes that he has made the great first step toward the solution of the problem of wireless telephony, and his experimental exhibition certainly bears out his belief . . ."

The name of the young genius was Francis J. McCarty, who was born in Hayes valley in 1888. He was a nephew of Dan "White Hat" McCarty, and was the second inventor to appear in the family: his grandfather, William Lynch of San Francisco, had invented and patented something he called "Lynch's illuminating ventilating tile." You see a development of it everywhere today on city sidewalks, small circular pieces of heavy glass set in the concrete to admit light into under-the-sidewalk basement areas.

In his tiny office at 988 Market street, his brother, Ignatius McCarty, who worked with him on his early experiments, told me what Francis was like.

"At 14, he was a tall kid for his age, about 6 feet," he said. "He went to St. Ignatius College until he was 12, and then left school, but he was always studying and tinkering. He was a great one for going around and getting information . . ."

An electrical engineer himself, McCarty spent some time explaining the technical aspects of his brother's work, and the names of the Nineteenth Century scientists, Maxwell, Branley, Hertz and Marconi, all of whom contributed something to the development of radio, figured prominently in his discussion.

"Francis started his experiments to demonstrate that the Hertzian wave would transmit voice in 1902, when we lived on Hermann street, near the Mint. We used to take the apparatus out to Golden Gate Park, and talk across Stow lake.

"People used to ask us what we were doing, and we told them, 'Talking by wireless telephone,' I guess," Ignatius laughed, "they thought we were nuts . . . But wouldn't you?"

(To be continued