Radio Telephone Spans Continent

[From The Washington Post, Sept. 29, 1915.]

Long distance wireless telephone communication was accomplished for the first time yesterday, when experiments extending over several months culminated in successful transmission of the human voice by radio from the great naval plant at Arlington, Va., across the continent to the station at Mare Island, Cal., 2,500 miles away.

The experiments were conducted under the direction of Capt. Bullard, chief of the navy's radio service, in co-operation with the American Telephone and Telegraph Company and the Western Electric Company. Secretary Daniels, announcing the result last night, predicted that further development of wireless telephony would make great changes in long distance communication, both for military and naval service and in commercial usage.

May Talk to Ships at Sea

Successful operation of a device for automatically transferring to the radio telephone conversations originating on metallic circuits also was accomplished in yesterday's tests. President Theodore N. Vail and other officials of the American Telephone and Telegraph Company, at New York, talked easily with the Mare Island station, the conversation traveling over an ordinary metallic line from New York to Arlington and thence by radio across the continent.

"The fact that the voices can be started on a land wire and automatically transmitted to a voice radio transmitter," said Secretary Daniels, "holds out hope that persons inland should readily be put in touch by telephone with others at sea through some central transmitting station."

Secretary Daniels' Announcement

The navy department's formal announcement follows:

"Secretary Daniels is pleased to announce the successful outcome of experiments which have been carried on for the last few months by the American Telephone and Telegraph company and Western Electric company in co-operation with radio stations under jurisdiction of the navy department by which long distance wireless telephony has been made possible.

"Today, September 29, speech was successfully transmitted from the Arlington radio station to the radio station at Mare Island, California, and there successfully received, thus making possible conversation without wires over a distance of approximately 2,500 miles, the first time this great distance has been covered by wireless telephony.

Voice Carries Successfully

"In the first experiments today, the voice was successfully transmitted by raido to Mare Island From Arlington, the return answers and communications being made over the transcontinental land telephone line. This was successfully accomplished in the presence of officials and engineers of the Western Electric Company, a representative of the signal corps of the army, representatives of the technical and operating departments of the navy department and a few other interested parties.

"After this successful demonstration conversation originating in New York was transmitted over the land line to Arlington, there automatically connected to the radio transmitter, which carried the voice to Mare Island, where it was clearly and distinctly received, and answers and other conversation were from there transmitted over the transcontinental line to the originating office in New York.

"The conversation was carried on by the president of the A. T. and T. company, Mr. Vail; the vice president, Mr. Bethell, and Mr. Waterbury, one of the directors, while at Mare Island were officials of the navy department, John J. Carty, chief engineer of the A. T. and T. company, and representatives of the Western Electric company, every official taking part in this demonstration is enthusiastic about the results and the possibility of developing this system as an extension of the telephone system to ships at sea.

"The use of such long-distance wireless telephone communication in naval or military operations is still in an undeveloped state, and it is expected valuable use can be made of this wonderful demonstration; but aside from such considerations the department and its officials may well feel proud that they have been interested co-operators in the first practical development of this last march in the wonderful science of raido communication."

To Talk With Japan Next

New York, Sept. 29. — President Vail, surrounded by a few officials of the American Telephone and Telegraph company, picked up the transmitter in his office here today and called John J. Carty, the chief engineer, by wireless, at San Francisco. The latter replied almost instantaneously and the men conversed for several minutes in a clear, distinct tone.

The transmission of audible speech to Europe by wireless can be taken as an assured possibility, in the opinion of officials of the company here, who added that it would have been attempted before this but for the European war.

They declared that talking from New York across the Atlantic and from here to Japan by wireless is now but a matter of installing the necessary apparatus.

Talked to Panama Months Ago

Vallejo, Cal., Sept. 29.—Wireless telephone communication between Washington, D. C., and the Panama canal, a distance of 2,100 miles, was established months ago, but public announcement was withheld until the greater goal—transcontinental communication could be reached.

This statement was made by chief Engineer John H. Carty, of the American Telephone and Telegraph company, after his conversation in the wireless tower at the Mare Island navy yard today with Theodore N. Vail, who was speaking from New York.

"The problem of transoceanic communication has been solved," Carty asserted. The day was near, he said, when it would be as easy to talk from San Francisco to London and Paris as it is today to talk over the wire from San Francisco to New York.

"The biggest thing about the achievement," Carty declared, "was that it demonstrates the solution of what has been a baffling problem, a perfect connection between telephone wire and the wireless ether."

Carty has been in San Francisco and Vallejo for several weeks, working out the details of today's test.

The Naval Advisory Board

The new naval advisory board, the organization of experts nominated by eleven great engineering and scientific societies to contribute their inventive geniuses to the American navy, the membership of which was announced recently by Secretary of the Navy Daniels, held its first sessions in Washington, October 6 and 7.

A Washington dispatch, dated Oct. 6, says:

Headed by Thomas A. Edison, the members of the inventions board were received by Secretary Daniels at the latter's office at 11 o'clock this morning. All the bureau chiefs of the navy department were present and were introduced to the visiting scientists. After the preliminary meeting in Mr. Daniels' office, the inventors' board and the bureau chiefs of the navy department accompanied Mr. Daniels to the White house. After the president had addressed the board members they went to the Indian Head proving ground on board the Mayflower. At Indian Head the board entered a bomb-proof to witness the firing of the latest model of naval 14-inch gun, observed the firing of a Colt automatic machine gun and visited the powder factory. Tonight the board met for organization in Mr. Daniels' office at the department. All the bureau chiefs were present, and an address was given by Secretary Daniels.

Before adjourning the board elected the following officers:

Chairman, Thomas A. Edison, of Orange, N. J.

First vice chairman, Peter Cooper Hewitt, of New York.

Second vice chairman, William L. Saunders, of Plainfield, N. J.

Secretary, Thomas Robins, of Stamford, Conn.

Assistant to chairman, M. R. Hutchinson, of Orange, N. J.

The first concrete result of the naval consulting board developed when formal announcement was made that the board had unanimously approved a plan for the establishment of a great research and experimental laboratory for the United States navy. The plan as adopted was proposed by Thomas A. Edison, the chairman, and calls for the establishment of this laboratory at a cost of $5,000,000 for grounds, buildings and equipment, to be operated at an annual expense of from $2,500,000 to $3,000,000.

Purposes of the Board

"Desiring to make available the latest inventive genius of our country to improve our navy," said Mr. Daniels in making his announcement, "a short while ago I requested Thomas A. Edison to become chairman of an advisory board of prominent men who would make up the board. Mr. Edison, with the patriotism characteristic of American inventors, accepted the call to duty. The plan adopted for selecting the members of the advisory board was as follows:

"I selected eleven great engineering and scientific societies to select by popular election members to represent them on the board. The result has been most gratifying. I have received the nominations of all these societies and have accepted them and it only remains to have a meeting, organize and determine the method of procedure in order to utilize to the best advantage this mobilization of the talent and genius of our great country."

Who Are the Advisers?

The members of the board and the societies which nominated them follow:

American aeronautical society—Hudson Maxim, Brooklyn, ordnance and explosive expert; Mathew Bacon Sellers, Baltimore, authority on aeronautics.

American society of automobile engineers—Howard E. Coffin, Detroit, Mich., and Andrew J. Riker, Bridgeport, Conn., inventors, automobile builders and now vice presidents of large automobile manufacturing companies.

The inventors' guild — Dr. Peter Cooper Hewitt, New York, inventor of appliances for telephones, hydroplanes, aeroplanes, balloons and electric lights, and Thomas Robbins, Stamford, Conn., inventor of many mechanical devices, including the conveyor for coal and ore.

American chemical society—Dr. W. R. Whitney, Schnectady, N. Y., creator and director of the research laboratory of the General Electric company; L. H. Baekelan, Yonkers, N. Y., a native of Belgium, famed particularly for the invention of a photographic paper.

American institute of American engineers—Frank Julian Sprague, New York, an early assistant of Edison, who built the first electrically trained gun for the navy; Benjamin J. Lammaele, Pittsburgh, inventor and head of a committee which passes on all Westinghouse inventions.

Two Mathematicians

American mathematical society—Robert Simpson Woodward, president of the Carnegie institute at Washington, D. C., and an authority on astronomy; Dr. Arthur Gordon Webster, Worcester, Mass., professor of physics at Clark university.

American society of civil engineers—Andrew Murray Hunt, New York, experienced in development of hydro, electric, steam and gas plants; Alfred Craven, New York, chief engineer of the New York public commission.

The American institute of refining engineers—William Lawrence Saunders, New York, inventor and engineer, and Benjamin Bowditch Thayer, New York, metallurgist and explosive expert.

The American electro-chemical society—Dr. Joseph William Richards, South Bethlehem, Pa., professor of metallurgy of Lehigh university, and Lawrence Addicks, chrome metallurgical engineer.

The American society of mechanical engineers—William Leroy Emmett, Schnectady, N. Y., engineer and inventor and first serious promoter of the electric ship propulsion, and Spencer Miller, South Orange, N. J., inventor of apparatus that has simplified coaling of ships and of the breeches buoy device now used by the coastguard service.

The American society of aeronautic engineers—Henry Alexander Wisewood, regarded by many as the world's famous authority on the engineering features of the art of printing, and Elmer A. Sperry, electrical inventor and manufacturer.

A Neat and Thorough Job

A St. Louis politician imported his cousin from the country, and had him appointed a smoke inspector. Without any definite instructions the new official was turned loose to inspect. This is the report he rendered at the end of the first week:

"I certify that I have inspected the smoke of the district assigned to me for the week last past. I find plenty of smoke and apparently of good quality."—Ex.