


HISTORICAL MUSEUM

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TELEVISION



TELEVISION was presented to the public on April 7 by demonstrations in these Laboratories to representatives of the press and to other guests. The demonstrations were the culmination of work dating back for several years, but carried on more and more intensively as its fruition drew near. Certain laboratory groups had made it their chief concern for several months; it merged into the normal activity of others. It is estimated that two hundred engineers, scientists and technicians contributed to the success of the project.

For some weeks before the demonstration, our Auditorium had been a place set apart for strange activities. Past the uniformed guard at the door, curtained enclosures contained arrays

of panels and wiring; "Washington", "Whippany", "the big disc", "synchronize" were words frequently heard. Last-minute requests for apparatus were loyally met by double shifts and long hours of overtime. Finally the day was set. With invitations issued, the final difficulties had to be overcome and the program carried out with the smoothness characteristic of Bell System demonstrations.

As each of the two audiences took their places in the Auditorium, music from the Vitaphone was heard. Then President Gifford rose to welcome the guests in behalf of the American Telephone and Telegraph Company; Dr. Jewett spoke similarly for the Laboratories and introduced Dr. Ives' popular explanation of the technical developments embodied in the television system. Then that system spoke for itself: the guests, gathering around the local transmitter and filing by the "big disc" had an opportunity to see and talk with each other.

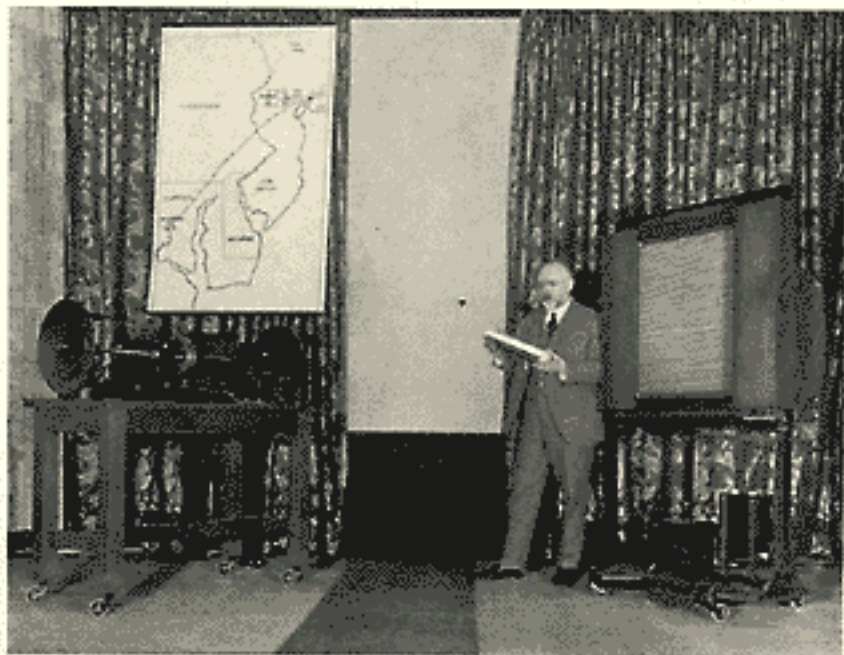
Meanwhile the Washington transmitting disc had been synchronized with the receiving apparatus in New York, and Mr. Gifford took his place at the larger disc reproducer. Over a telephone he exchanged a few words with Mr. Hoover in Washington. Then Mr. Gifford moved to a seat in the audience, where he could see the grid, on which Mr. Hoover's face then appeared. As Mr. Hoover spoke from Washington, the audience could hear him over the loud speaker and see such gestures as he made.

This conversation finished, E. F. Kingsbury of the Laboratories staff, in charge of technical operations at the Washington terminal, read a list of those present in Washington, in order that their acquaintances at New York might see and speak with them.

A number of the New York guests availed themselves of this privilege, recognizing instantly the images which appeared in the two-inch square aperture of the "large disc". During this part of the second show, Mr. Gifford learned that Mrs. Hoover was in the Washington group. When she came to the viewing point, they recalled their wartime associations in Washington, the obviously unpremeditated conversation making the demonstration seem more real.

a practical achievement of the television dream: sight and sound transmitted simultaneously by radio for the enjoyment of a distant audience.

With this demonstration the formal part of each program was concluded: newspaper men, after some additional inspection of the apparatus and asking of questions, departed to file their stories. After the later show, the guests remained for some time, seeing and talking with friends in Washington. Finally the last ques-



Experimental apparatus on the stage of the Auditorium, and Dr. Ives as he explained the fundamental workings of the system

A touch of comedy was inserted at this point by the all-radio transmission from Whippany of a broadcast entertainment program, the faces of the performers being simultaneously visible on the "grid". Here then was

tion had been answered, the last photograph had been made, the last visitor had departed, and the technical staff adjourned to the restaurant for dinner—tired, but jubilant over the success of this epoch-making day.



At the transmitter in Washington as Secretary Hoover talked to New York. Standing are General Carty, Mr. Berry and Judge Davis



Address of Secretary Hoover at the Television Demonstration

IT is a matter of just pride to have a part in this historic occasion. We have long been familiar with the electrical transmission of sound. Today we have in a sense the transmission of sight, for the first time in the world's history.

Human genius has now destroyed the impediment of distance in a new respect, and in a manner hitherto unknown. What its uses may finally be, no one can tell, any more than man could foresee in past years the modern development of the telegraph or the telephone. All we can say today is that there has been created a marvelous agency for whatever use the future may find, with the full realization that every great and fundamental discovery of the past has been followed by use far beyond the vision of its creator. Every school child is aware of the dramatic beginnings of the telegraph, the telephone and the radio, and this evolution in electrical communications has perhaps an importance as vital as any of these.

This invention again emphasizes a new era in approach to important

scientific discovery, of which we have already within the last two months seen another great exhibit—the Transatlantic telephone. It is the result of organized, planned and definitely directed scientific research, magnificently coordinated in a cumulative group of highly skilled scientists, loyally supported by a great corporation devoted to the advancement of the art. The intricate processes of this invention could never have been developed under any conditions of isolated individual effort.

The world is under obligation to the American Telephone and Telegraph Company for its vision in the establishment and support of these laboratories, and owes tribute to all those who have played their part in this development.

These laboratories have produced a long list of additions to the telephonic art and a constant contribution to other arts, but no one of them more dramatic or more impressive than this.

I always find in these occasions a great stimulation to confidence in the future. If we can be assured a flow of new and revolutionary inventions to maintain thought, stimulate spirit, and provide a thousand new opportunities for effort and service, we will have preserved a vital and moving community.

I am glad to welcome television as the latest product of scientific discovery. It promises that where the voice has led the way over the telephone wires, the eye will ultimately follow. Washington and New York are today not only within earshot of each other, but within sight as well.

Scientists for many years, in many countries, have struggled to solve the problems of television. We may all take pride in the fact that its actual accomplishment is brought about by American genius and its first demonstration is staged in our own country. I congratulate you, Mr. Gifford, and through you all of your staff who have contributed to it.



The Demonstration at Washington

WITH Herbert Hoover, Secretary of Commerce, as guest of honor, a gathering of prominent people in Washington saw faces and voices transmitted simultaneously over telephone wires to New York. As one by one they took their places in front of the flickering white light and heard exclamations of wonder from their friends two hundred miles away, they too shared in the awe of the occasion.

As in New York, two shows were held, for newspaper men and for

other guests respectively. To each gathering General Carty extended welcome on behalf of the American Telephone and Telegraph Company, and explained briefly what they were about to witness. After establishing communication with Mr. Gifford in New York, General Carty invited Mr. Hoover to take his place at the viewing point. Through telephone receivers the Washington audience heard an exchange of greetings between Mr. Gifford and Mr. Hoover, after which Mr. Hoover delivered to

both audiences the address which is reproduced in italics above. E. F. Kingsbury of the Laboratories, in charge of the Washington technical staff, then read to the New York audience a list of the guests in Washington, after which a number of them were called to be heard and seen by their friends in New York. These "calls" were handled by Miss Edna



The nerve center of the photoelectric eyes of the television equipment installed at Washington. G. R. Keith and J. G. Knapp of the Laboratories manipulate the controls at the amplifiers which transmit the scene to New York

Horner, an operator of the Chesapeake and Potomac Telephone Company, who was clearly seen by those in New York. Later, all present had an opportunity to inspect the apparatus and to see in the monitoring

aperture each others' faces as they would have been received in New York had the lines been connected.

Quarters for the Washington demonstration could not be obtained in the C. & P. building in which were terminated open wire circuits to New York, so a small building in the same block was rented. Cables were strung from the Telephone Building to the



A close-up of the transmitting apparatus for television at Washington. E. F. Kingsbury as he talks to the microphone is viewed by three photoelectric eyes located behind the three screens of the box immediately in front of him

roof of the new quarters. House service was supplied by C. & P. and their staff was of great assistance in arranging for services of contractors and suppliers during the installing and testing of the apparatus.

