

Minutes of January 1907 meeting of the Washington
Section of the A. I. E. E.

Washington, D. C.,
February 5, 1907

The regular meeting of the Washington Branch of the American Institute of Electrical Engineers, was held in the Main Hall of the George Washington University on the evening of January 24th. The subject which had been assigned to the meeting was "Telephony", especially the question of "Telephony in Washington".

Mr. George C. Maynard, Electrical Director of the Smithsonian Institution, read an exceedingly interesting paper, regarding the early history of the "National Telephonic Exchange", the original licensee under the Bell patents for the District of Columbia, and of which Mr. Maynard was General Manager and moving spirit for many years. The paper recited the great difficulty in obtaining fifty people as subscribers to the first telephone exchange, which was finally opened in November, 1878. The instruments used were three or four types manufactured by as many different individuals, and the switchboard was of the "Peg" type generally used in telegraph offices at that time. The growth of the system in Washington, from the modest beginning mentioned, until 1883, when it had one thousand subscribers, was detailed, and many incidents of local interest were brought out by the author of the paper.

Mr. P. G. Burton, Division Superintendent of the Chesapeake & Potomac Telephone Company, took up the thread of the story where Mr. Maynard's paper left it, showing the growth of the system from 1883 until the present time. Mr. Burton's paper was illustrated with lantern slides, showing many of the old pole lines which filled the streets of the city until a comparatively recent date, and with other photographs showing the underground system of distribution used at the present time. A map was also shown, on which was indicated the existing conduit system of the Company with proposed extensions, and also the location of present and proposed exchanges of the Company.

Curves were shown, indicating the growth of telephony in Washington, and in the United States, from the earliest days until the present time, and showing that almost half of the total number of subscribers in Washington have been added to the system during the past two years.

An exhibit of especial interest was a section of the first system of underground wires laid in Washington for telephonic purposes, and which consisted of porcelain diaphragms about 3 1/2 x 6", which were placed four feet apart in a wooden trough. These diaphragms were pierced with sixty holes, through which were drawn bare and cotton insulated wires, and the boxes were then filled with tar. The projector of this system had not calculated on the great heat of a

Washington summer, for the first difficulty which was experienced with this system was the fact that the tar became fluid, and flowed through the diaphragms into the basement of the exchange.

Several pieces of old style cable, both rubber and cotton insulated, were shown, some of which have been buried in the streets since 1883.

There was also shown a section of the so-called "Solid System", which consisted of cotton insulated, saturated core lead covered cable, buried in asphalt, which was for many years, the standard system of underground distribution in Washington.

As a contrast to this, pieces of modern 600-pair paper insulated cable were shown.

The papers were discussed by Messrs. F. H. Bethell, and B. W. Trafford, Vice President and General Manager, respectively, of the Chesapeake and Potomac Telephone Company; also by Messrs. E. E. Clement, Colonel Samuel Reber, U. S. A., and others.