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COVINGTON, KY., U. S. A.

April 24, 1947

Mr. John S. Penn
Assistant Professor of Public Speaking
The University of North Dakota
University Station
Grand Forks, North Dakota

SUBJECT: History of the University of Wisconsin

Dear Mr. Penn:

Your letter of April 17, 1947 has been received. I would be pleased to cooperate with you in your program to record the history of the work of the Physics Department, the history of station WHA and particularly the work of Professor E. M. Terry.

I held the fellowship in Physics at the University of Wisconsin for the school years 1918-1919 and 1919-1920. I was assigned as Laboratory Assistant to Professor E. M. Terry.

1 Professor E.M. Terry headed up the teaching staff for Engineering Physics. He gave the Engineering Physics lectures and also taught several Engineering Physics class sections. Although Professor Terry was an able theoretical physicist, he chose to work in the field of Applied Physics. Dr. Terry had the viewpoint of the engineer, and his painstaking lectures stimulated the engineer's interest in Physics and gave them an unusual preparation for their work. He encouraged his students to breakdown their problems into component parts and solve the components separately. Difficult problems, under his kindly guidance, appeared easy after a short consultation with him.

2
3 Dr. Terry's first interest in radio began about 1914 or 1915. The Engineering Physics Department at that time was located in the old red brick physics building, which faced on the street which ran into the lake along the bottom of the upper campus. The first University of Wisconsin radio station was a spark station which was designed by Professor Terry. A young Engineering student by the name of Hansen helped Professor Terry on this station. Hansen although a very able student devoted so much time to the radio station that he finally dropped his University work. This Hansen was the same man who went down to the South Pole as radio expert with Admiral Byrd. Hansen did some very outstanding work in radio transmission theory, while on the Admiral Byrd

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expedition. I believe Hansen later returned to the University of Wisconsin and obtained an Engineering degree. He was killed in an aeroplane accident along the East Coast of the United States.

When the new Physics building was built, next to the Chemistry building, at its present location, Dr. E. M. Terry designed a continuous wave tube radio station which later became WHA. I distinctly remember when Dr. Terry and I made the first vacuum tubes for station WHA. Dr. Terry was a skillful glassblower and he blew those large tubes by hand, stripped to the waist in summer heat in his laboratory. I assisted him as best I could as an amateur glassblower. It became my job later to evacuate and obtain the characteristic curves for these oscillator and modulator tubes. The first set of lime glass tubes operated at WHA for a number of months, then by some accident they were completely destroyed. The second set of vacuum tubes which were used by WHA were made of pyrex and were blown by Mr. Davis who has been recently employed by the University of Wisconsin as a professional glassblower.

5
Station WHA was designed by Dr. Terry but many of the undergraduate and graduate students about the Physics Department assisted in the actual construction work.

6
Dr. Terry did a good deal of work on grid modulation, loop antennas, investigation of "out-gasing techniques" and evacuation techniques for radio tubes.

1
During the first World War, Dr. Terry had charge of the submarine detection work which was assigned to the University of Wisconsin. I worked on Maxfield microphones for the submarine project. The entire program of the University of Wisconsin was headed up by Professor Max Mason, who headquartered at New London, Connecticut, but Dr. Terry headed up the resident work at the University.

Dr. Terry had many hobbies, but one in which he was especially interested, was clock making. He made a number of very fine grandfather clocks. He took pride in showing these clocks to students who he invited to his home. Some of these clocks are unusually accurate; their pendulums having been compensated to a high degree for expansion.

I appreciate that this is a preliminary rambling discourse. I hope that I will be of more service to you later when you ask me definite questions.

Yours very truly,

THE KELLEY KOETT MANUFACTURING CO.

Lloyd L. Call
Director of Research

Lloyd L. Call
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