

DR. GRACE AT DINNER IN HIS HONOR. TELLS OF NEWEST MARVELS OF SCIENCE

(Continued from page one) of the pleasure that was his in coming back to Farmington again, to "return to the home land, the soil from which I sprung." Then, in apt and colorful language, as would an artist with quick brush strokes of brush, he painted for his audience a vast and inspiring canvas of the accomplishments of science, its aims and its outlook upon the world in which we live. Two conclusions of his own, drawn from his scientific research and the broad range of his experience, he left to those about him—the decisive part that science may play in making out a better world for all to live in, and the endlessness of research, the infinity of things to be learned and the quest for learning that will go on as long as men inhabit the earth.

"Men are no longer slaves of work. Science has made machines to do for them," said Mr. Grace. The old individual inventor has practically disappeared, replaced by organized research, such as that at the Bell Telephone Laboratories in New York, where Mr. Grace helps to direct the work of 5,000 people, with an expenditure of \$20,000,000 a year. Inventions and improvements are now the results of combined efforts of experts in many fields, each working on a particular phase of an experiment, for no one man could possess the knowledge required to work out some of the problems undertaken by science today. Dr. Grace took from the table and held in his hand a small object, a loading-coil developed by intricate formulae and made with cores of permalloy, a material which was not found in Nature, but has been developed in recent years by man. These loading-coils enable the voice to be heard five times as far as is possible without them. The wondrous and baffling magnetic property of permalloy 100 times more sensitive to magnetism than iron, he demonstrated with a permalloy rod. So sensitive is the metal to magnetism that it picked up a piece of steel when turned north and south, and dropped the steel back on the table as Dr. Grace swung it westward to pointing east and west.

**Dr. Grace's Ambition**  
**Was To Be A Doctor**  
Dr. Sergius P. Grace might have been able to write "Dr." in front of his name long ago, although it would have been a different kind of doctor, but he followed his first inclinations. This was disclosed by Clare Grace this week.  
Mr. Grace says that he recalls and often thinks about something Dr. Grace's father told him many years ago. Dr. Grace, then a youth, told his father, Theodore Grace, that he wanted to go to school and become a physician and surgeon. "Oh, no," the parent replied. "The woods are full of doctors. Electricity is the new thing. You ought to study electricity and engineering. For once it seems, a son followed his father's advice, with the results that 'the world now knows."

science is not enough, Dr. Grace declared: "The next great job of science is for scientists and engineers to develop a co-operation with those in the world of business so that the world may be made a happier, better place for all to live in."  
As to an ultimate solution of the problem of gravity, Dr. Grace would never be an ending of the quest for knowledge, that there is an infinity of things to be learned, secrets which Nature does not give up easily, but which must be wrested from her by constant, strenuous effort. He said that he would not consider it desirable to live in a world in which all was known to man, rather, that it is the quest for knowledge which is the most important thing in life. So much was left to be learned, affording man the never-ending joy of discovery.

Although he spoke for an hour, Dr. Grace used only a few of the articles he carried with him. These in turn brought out a host of hundreds of things he takes with him when he addresses scientific gatherings, some of whom he addresses for from two to three days. On the occasion of a notable twenty or thirty feet long table required to hold all of his apparatus, and an assistant accompanies him to aid in demonstrating.  
Dr. Grace promised before leaving that when he next comes for a lecture in this part of the country, he will see that a block of tickets is sent to the Enterprise office in Farmington, people who wish to attend may do so. He left after the dinner for Cleveland, where on Wednesday he addressed the summer convention of the American Institute of Electrical Engineers.

Dr. Grace came to Farmington as he had begun, but fore-runners of new marvels and greater wonders to come, with engineers, electrical experts, chemists, physicists, mathematicians and others working together. Thus he told of how it was largely through mathematical calculation that it has become possible to send numerous messages at the same time over a single wire of wire not much thicker than a human hair, so that 140,000 messages could be sent simultaneously along a single thin wire no more than 2 1/2 inches in diameter.

In the front rank of interest among Dr. Grace's things was the artificial larynx, about which all had heard so much. Not only did he describe and demonstrate it, but he gave Mr. Steele a chance to try it out, showing that those with perfect speaking facilities can use it as well as the handicapped, although it is "connected" differently.  
The artificial speaking device had its inception some years ago when a noted surgeon of New York told Dr. Grace that he had almost succeeded in some operations suffering from malignant conditions. "But," Dr. Grace related, "he told me sadly that the patient, though they recovered, would lack the ability to speak." Within a comparatively short


time after the surgeon asked if some might not be done to help, the artificial larynx was ready. It is attached to a tube in the neck of the user, and makes possible the carrying on of conversation without difficulty. Dr. Grace said it is unusual for two degrees of equal rank to be conferred upon a person by two great schools in the same year.  
Dr. Grace has made outstanding accomplishments in the design, construction and operation of telephone plants, large and small, and as a research engineer in work particularly applied to the electrical transmission of speech. In his public appearances the last few years, he has done much to bring about a clearer understanding of the research and development work that has made possible today the telephone system and its by-products, such as the telephotograph, television, teletypewriter, artificial larynx, hearing aids for the deaf, talking machines and other telephonic phonograph. He has helped greatly to popularize the work of the scientist and to bridge the gulf between science and business. He is the American Institute of Electrical Engineers.  
Shortly after graduation from the University of Michigan, Dr. Grace was employed by a telephone company then operating in Detroit and suburban communities. He early worked recognition by experimental work in methods to prevent electrolysis, or erosion of underground cable sheaths, a critical problem then facing telephone engineers. In 1898 he superintended the building of the first underground telephone cable system in New Orleans, he followed the problem of underground water by using specially constructed cable that had the characteristics of present day submarine cable.  
From 1900 to a Bell company operating in Western Pennsylvania, Dr. Grace developed many of the telephone plant standards in general use today. In 1904, while on that work, he received the degree of electrical engineer from the University of Michigan. In 1914 he established himself as a communications consulting engineer in New York City, and was appointed chief telephone engineer for the New York State Public Service Commission. Following that work, he was employed by the New York Telephone company as assistant chief engineer, but in 1920 took a year's leave of absence from telephone work and helped develop the radium and vanadium industries with firms which produce quantities of radium, vanadium and uranium from the carnotite ores of Colorado.  
Returning to the telephone work, he spent the next few years in research, executive positions with the Western Union Telegraph company, the American Telephone & Telegraph company and the Western Electric company, and in 1924, to the Bell Telephone Laboratories.  
In 1925, he was appointed head of a department for the commercial development of research work.  
Elected president of the New York Electrical Society, in 1929, he undertook the development of that organization into a science forum for discussions and demonstrations of late developments in electrical and electrical science. The meetings attracted the attention of representative business and professional men, and Dr. Grace began to receive numerous invitations to appear before civic, business, educational and technical organizations throughout the country. He since has taken the story of the marvels of sound transmission to more than a third of a million people.

Misses Genevieve and Virginia Smith, Helen Kraeger, and "Gwen" Lancaster of Farmington were week end visitors at the Holcomb cottage at Walled Lake and helped Drayton to celebrate his birthday.  
Send in your news items.

was born in Farmington, Michigan, October 11, 1875, was graduated from the University of Michigan Department of electrical engineering in 1896. He is assistant vice-president of the Bell Telephone Laboratories, New York.  
The honorary degree of doctor of laws was conferred upon Dr. Grace at Notre Dame University June 5. It is unusual for two degrees of equal rank to be conferred upon a person by two great schools in the same year.  
Dr. Grace has made outstanding accomplishments in the design, construction and operation of telephone plants, large and small, and as a research engineer in work particularly applied to the electrical transmission of speech. In his public appearances the last few years, he has done much to bring about a clearer understanding of the research and development work that has made possible today the telephone system and its by-products, such as the telephotograph, television, teletypewriter, artificial larynx, hearing aids for the deaf, talking machines and other telephonic phonograph. He has helped greatly to popularize the work of the scientist and to bridge the gulf between science and business. He is the American Institute of Electrical Engineers.  
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entrance to the Oakland County Building, Pontiac, Michigan, (that being the building where the Circuit Court for the County of Oakland is held), the lands and premises described in said mortgage, or so much thereof as may be necessary to realize the sum which may be due by the interest thereon and all legal costs allowed by law, and any sum or sums which may be paid by the undersigned at or before said sale for the protection or restoration of the mortgaged premises, to-wit: Land situated in the City of Farmington, County of Oakland, State of Michigan, described as follows: The west one-half (1/2) of Lot thirteen (13), OAKRIDGE SUBDIVISION of the west one-half (1/2) of the southeast one-quarter (1/4) of Section Twenty-eight (28), Town One (1) North, Range Eleven (11) East, according to the plan and plat of said lands, on file in the office of the Register of Deeds for Oakland County, in Liber 37 of said County, and together with the hereditaments and appurtenances thereunto in anywise connected.  
Said premises being situated on Maplewood Avenue between Pinecrest and Central Aves., Detroit, Michigan.  
Dated: June 8th, 1932.  
AMERICAN TRUST COMPANY, Trustee.  
FREDERICK GOULD and NORMAN W. STATE SAVINGS BANK, a State Banking Corporation of Farmington, Michigan, the undersigned, do hereby certify that the first day of August A. D. 1932, in the office of the Register of Deeds for the County of Oakland and State of Michigan, in Liber 37 of said County, in page 408, there is on file a certain mortgage in and to the said State Savings Bank, in the sum of FOUR THOUSAND DOLLARS (\$4,000.00), and no part or proceeds at law or in equity having been paid or instituted to recover the debt secured by said mortgage, or any part thereof, and the undersigned having been appointed and qualified Receiver of said Bank.  
Now, therefore, by virtue of the power of sale contained in said mortgage, and pursuant to the statute in such case made and provided, NOTICE IS HEREBY GIVEN that the first day of the month of September, A. D. 1932, at ten o'clock in the forenoon, at the Court House in the City of Pontiac, Oakland County, Michigan, (that being the place where the Circuit Court for the County of Oakland is held) of the premises described in said mortgage, or so much thereof as may be necessary to pay the amount due on said mortgage as aforesaid, with 7 per cent interest thereon, and all legal costs, charges and expenses, including the attorney fees allowed by law, and any sum or sums which may be due by the undersigned as aforesaid, or before said sale necessary to protect its interest in the premises, which premises are described as follows:  
Lands and premises situated in the Township of Farmington, County of Oakland and State of Michigan, to-wit: Lots 378, 379, 380, 437, 438, 439 Oakland Subdivision of part of the Southeast quarter of Section 3, Township of Farmington, County of Oakland, Michigan, recorded in Liber 38 Page 10 of the Oakland County Records, Dated June 10, 1932.  
DAN A. MCGAFFEE, Receiver of the Farmington State Savings Bank, a Michigan Banking Corporation.  
Mortgagee.  
EARL L. PHILLIPS, Attorney for Mortgagee, 515 Pontiac Bank Building, Pontiac, Michigan. June 16-Sept. 8

five dollars for each description, without other additional costs or charges, if payment as aforesaid is not made, the undersigned will institute proceedings for the foreclosure of the same.  
Description of Land:  
Lots 378 and 379 of 7/16's feet of Lot 16, Greenwood Park Charles H. Collins Addition to City of Detroit, City of Farmington according to plat thereof. Amount paid, \$231.51. Tax for year 1927.  
Amount necessary to redeem, \$705.62 plus the fees of this sheriff.  
D. L. C. LEE, Public Sale, 222 West Adams St., Chicago, Ill.  
To Dorothy Meyer & Lillian Sheets, Debtors, and to the undersigned, Maurice Finnegan, Attorney, 312 First National Bank Bldg., Pontiac, Michigan, in the regular case of title of said lands or of any interest therein as appearing by the records in the office of the Register of Deeds of said county. June 23-July 14

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Mortgagee.  
Mortgage SALE—DEFAULT have MORTGAGE SALE—DEFAULT have mortgage made for more than thirty days in the conditions of a certain mortgage made by JENNIE BUCKLEY of Pontiac, Michigan, mortgagee to GENEVIEVE NUSBAUMER of Pontiac, Michigan mortgagee, dated the 25th day of April A. D. 1927 and recorded in the office of the Register of Deeds for the County of Oakland and State of Michigan, on the 25th day of April A. D. 1927 in Liber 474 of Mortgages of said County of Oakland and State of Michigan, in which mortgage there is claimed to be due at the date of this notice the principal and interest, the sum of Three thousand Two hundred ninety-six (\$3,296.00) Dollars, and an attorney's fee of Twenty-five dollars, as provided by law, in such case made and provided, and having been instituted to recover the said mortgage, as aforesaid, or any part thereof.  
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