

From The Stanford Illustrated Review  
June 1931 Vol. XXII p. 413

# The Degree of Emeritus

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Aug 22, 1931

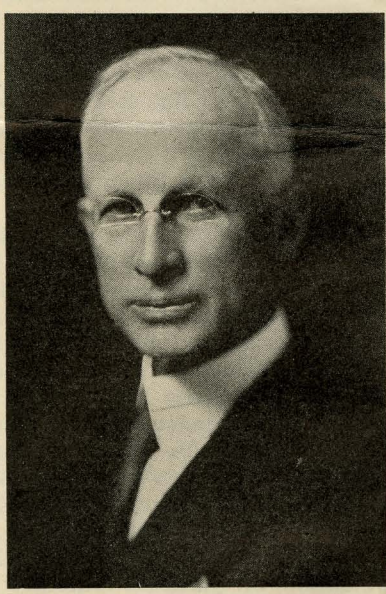
## DR. HARRIS J. RYAN

With remarkable vision and enthusiasm, Dr. Harris J. Ryan has led the way to advance after advance in electrical progress. Recently, in tribute to this vision and his invaluable contributions to electrical engineering, the Harris J. Ryan High-Voltage Laboratory came into being—Stanford's gateway to the future in electrical development.

Dr. Ryan was born near Harrisburg, Pennsylvania, January 8, 1866, and, after his preliminary training, entered Cornell University, where he was graduated in Electrical Engineering in 1887. After a year in engineering practice, realizing that he was basically interested in academic work, he accepted an instructorship in the Electrical Machinery Laboratory at Cornell where he could best utilize his efforts for science and humanity.

Dr. Ryan advanced rapidly at Cornell, becoming executive head of the Electrical Engineering Department at the age of twenty-three and only six years later receiving a full professorship. He served in that capacity until 1905, at which time he transferred to Stanford University, there to head the department of Electrical Engineering for twenty-six years. He is now retiring from regular academic routine to devote all his time and energy to electrical research.

During his forty-three years as a teacher he has carried on and directed a prodigious amount of research work covering practically the entire field of electrical engineering from the development of direct-current machinery to his recent work on high-voltage long-distance  
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Harris J. Ryan

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transmission. These studies have been fully described in various technical publications and particularly in the *Proceedings of the American Institute of Electrical Engineers*.

An early paper, "Transformers" (*Trans. A.I.E.E.*, 1890), was received with such wide-spread interest that it was published throughout the world of applied electrotechnics. This response had a profound effect on the author and led to his adoption of the life principle that, while training the student, his researches should be of maximum value to the engineer in the field. The practical result of his consistent application of this principle is the recent founding of the High-Voltage Laboratory which has been the greatest satisfaction of Dr. Ryan's career.

Other important papers that were milestones in electrical progress are: *On the Relation of the Air Gap and the Shape of the Poles to the Performance of Dynamo Machinery*, 1891; *The Conductivity of the Atmosphere at High Voltages*, 1904; and *A Power Diagram Indicator for High-tension Circuits*, 1911, to say nothing of numerous studies made by associates and graduate students inspired by his genius.

Through membership in the National Academy of Science, the American Society of Mechanical Engineers, and the American Physical Society, and Fellowship in the American Association for the Advancement of Science and the American Institute of Electrical Engineers (of which he was president in 1923-24), Dr. Ryan has maintained a lively interest in the development of the electrical art from both technical and human viewpoints. Prominent members of these associations and many leaders in science, engineering, and industry are among his close personal friends.

His concurrent occupation in contemporary research gave Dr. Ryan's teaching an atmosphere of breadth and vision that was a continual joy to the student. This dual rôle of discoverer and instructor, carried on in spite of limited physical strength, and, until recently, inadequate laboratory facilities, redounds greatly to his credit. Further, through having served as consulting engineer on large projects and having always

maintained a close contact with practice, his keen sense of business ethics has kept him free of commercial bias so that his counsel has been available to all.

In particular instance, a sympathetic interest has made his sincere advice eagerly sought by graduates in times of difficulty. Firmly convinced of the educational value of hard knocks, Dr. Ryan tells his graduates to "make the most of your opportunities to gain experience, and ten years will find you some place in the industry prepared to render your share of service for the good of the cause."

The wealth of opportunities offered by Stanford in electrical engineering finds no better recommendation than the large number of students and post-graduates continually seeking entrance, and the recent founding of Stanford scholarships in this and foreign countries.

Dr. Ryan's career is a beautiful example of co-operative spirit, pleasing personality, and sheer ability, drawing men and facilities to a worthy cause that Stanford might render greater service to humanity.

Mrs. Ryan shares honors with her husband in a genuine human interest in all former students, which makes the Ryan hospitality a Stanford tradition.