### OFFICIAL PROGRAM

(Continued from page 4) will be made at Nahant. The photograph will be 10 inches wide and about 60 inches long. By special arrangement copies will be furnished to the alumni at the remarkably low price of \$2 each.

A flash light photograph, 16 inches by 24 inches, will be taken at the banquet under the direction of the Notman Photographic Company, 3 Park Street, Boston. Proofs will be shown before the close of the evening, and copies may be ordered. Price \$2.50.

### HAROLD PENDER

### Experienced Electrical Engineer Comes to Institute

Harold Pender, an able teacher, experienced in original research work, and with years of successful, practical electrical engineering behind him, comes to the Institute next fall to take the professorship left vacant by Prof. Clif-

ford of Harvard.

· Harold Pender was born in Tarboro, North Carolina, 1879. He received his primary education in the public schools of Baltimore, Maryland, and at Mc-Donough School, near Baltimore, received the degree of B. A. at Johns Hopkins University in 1898, and Ph. D. at Johns Hopkins University in 1901; his special subjects were physics, electrical engineering, and chemistry. He held a Hopkins Scholarship for the years 1896-97 and 1897-98, and a University Scholarship for the year 1898-99; he graduated second in his class, and was elected a member of the Phi Beta Kappa Society in 1898.

· During the last two years of his graduation work at Johns Hopkins he assisted in the laboratory instruction of undergraduate students in the department of physics; in the summer of 1902 he gave a course in physics in the summer school at Syracuse University, and was for a time instructor in physics

at Syracuse University.

In December, 1902, he was invited by M. H. Poincare of La Sorbonne, Paris, to carry out in the laboratories of the University at their expense certain research work on the magnetic effect of moving charges of electricity, in which research he had been engaged in this country for the preceding two years. He therefore resigned the instructorship at Syracuse University in January, 1903, and spent the next four months



Prof. Harold Pender

in Paris, where he brought the research in question to a successful conclusion. The necessary funds for this work were suppiled by the Carnegie Institution of

Washington, D. C.

On his return to this country in 1903 he entered the shops of the Westinghouse Electric and Manufacturing Company at Pittsburg, Pa., and in the fall of 1903 was given a position in the engineering department of that company. While with the Westinghouse Company he made a special study of the heat radiation from large transformers and developed an accurate method of predetermining the size of cooling coils used in the water-cooled type; he also had charge of the testing of the sheet steel used in the construction of transformers and other apparatus.

In the spring of 1904 he took a position in the electrical engineering department of the New York Central Railroad: his work there was chiefly in connection with the transmission lines and sub-stations then being designed for the has been highly efficient, and has had New York terminal electrification.

# THE "TECH" FLORIST

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firm of corting engineers in New York. He hbeen engaged on a number of import pieces of work, namely, the report che Commission on Electric Lightingr the City of New York, a report tole International Railway Company of uffalo on their contract for water per, a detailed experimental investigon of the manufacture and anneali of the so-called "Silicon Iron," the ctrification of the Cascade Tunnel the Great Northern Railway, varioureports on the possible hydro-electr developments along the Northern Pfic Raliway, and the possible electration of certain sections of this raiad, and a report to the Public Serv Commission of New York on the ene meters in use in New York City.

He is thuthor of a large number of professid papers published in the Philosophic Magazine, the Comptes Rendus, anyarious electrical engineering journal

## AWARICABOT MEDALS

The Cab medals for the greatest physical inovement during the past year have een awarded as follows: Marcus A.rossman 1911, Frank W. Caldwell B, Alexander G. Herreshoff, Jr. 1912, Maniel G. Herreshoff 1912, and John all 1912. Honorable mentions, Auras P. Hornor 1912, Hubert O. Maxwe 1912, Edward C. Mayers 1912, HenrH. Partidge 1912, and Richard C. Stiney 1912.

The awling committee was Dean Alfred E.Burton, Profs. Samuel C. Prescott d Frederick H. Bailey, and Mr. Winfil C. Towne, instructor in

physical tining.

## TO SJDY IN EUROPE

The Tecology Architectural Traveling Scholships has been awarded to Ralph Johon Batchelder 1908, of Cambridge, Mss. The holder of this scholarshipeceives one thousand dollars and travelin Europe for one year, beginning Sc. 1, 1909.

Batchelø is a graduate student at the Instite, and receives the degree of M. S. thisear. Last year he won the \$50 prize ffered by the Boston Society of Architture for the best solution of a special coblem by fourth year regular

First notion was awarded to Joseph T. Monn 907, second mention to Kinker Kibb/ 1908. The other competitors were W. . Dolke 1908, C. F. Baker 1907, H. D. Cindler, G., C. C. Ford 1908, Louis Pitin, G., and W. B. Kirby 1907. The judes were Prof. Desire Despradelle, S. V. Mead and A. H. Cox of the insticting staff, Guy Lowell 1894, and Predent Peabody of the Boston Society & Architects.

## MANAGERS CHOSEN

Dudly Clapp 1910 General Manager of Tech Show

Garne A. Joslin 1909, general manager of he Tech Show, 1909, announces today the appointments to the management o the Tech Show, 1910. The appointments follow: General Manager, Dudley slapp 1910, of Dorchester; Business Maiager, Irving White Wilson 1911, of Broolline; Stage Manager, Kenneth Greenlea 1911. of Sayanna, Ill.; and Advertisng Manager, Henry Clarence Davis, J., 1911, of Fort Andrews, Mass.

Dudley Clapp, the new General Manager, highly deserves the position to which le has been appointed. In his sophomore year he was second assistant advertising manager, and this year he was advertising manager. He has written many lyrics besides. His work much to do with bringing the Show In 1905 he became associated with a through the year with a profit of \$1.250. 69-83 PURCHASE ST.



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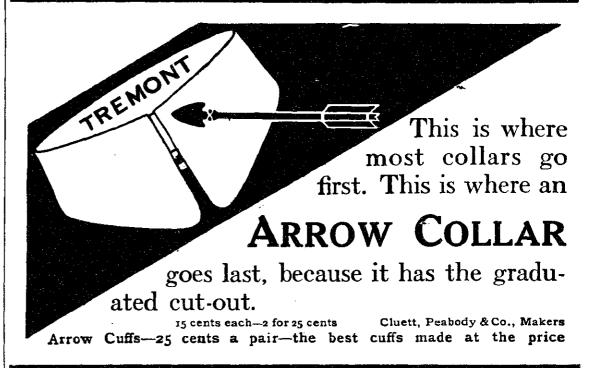
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