

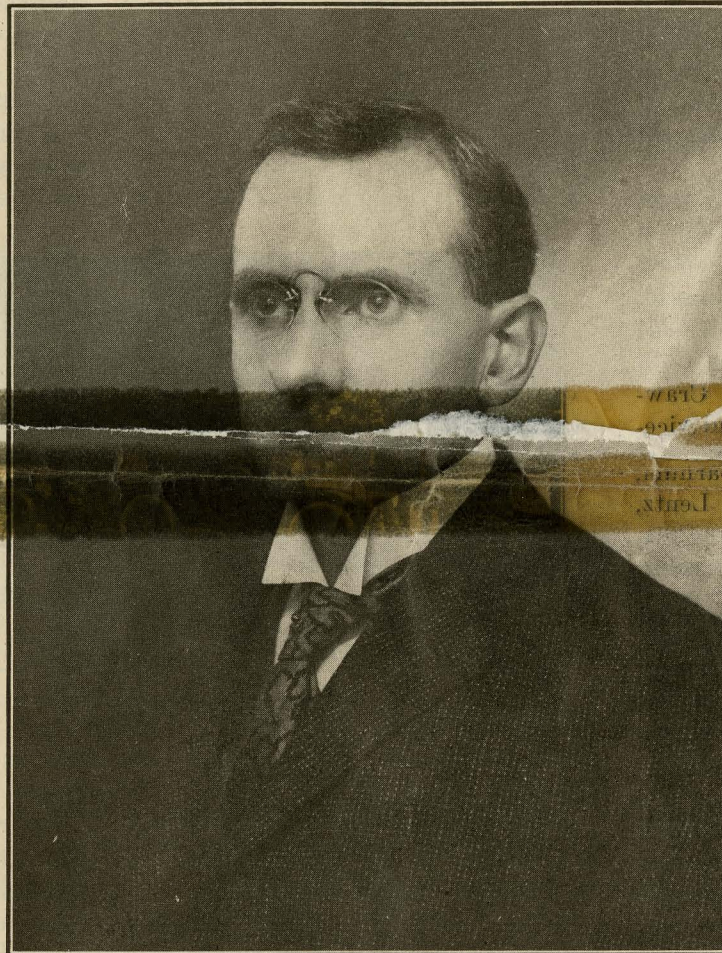
Charles F. Scott.

In these days of intensive cultivation upon the part of the technical student it is fortunate that there are available as instructors to the aspiring engineer men who by breadth of experience, by technical training, and by special gift are eminently suited to act as preceptor and guide in the formulating of those impressions which are essential if the groundwork be well established. Dugald C. Jackson, president of the American Institute of Electrical Engineers, in his address at the annual convention of the Institute in Chicago this week, points out that the professional man must have a masterly knowledge of his subject as well as being skillful in the details that appertain to the application of this subject as an avocation. The demands upon the integrity and ability of electrical engineers in their relation to and their activity in the affairs of men make it highly desirable that in their instructors they find ripe experience, clear and lean mentalities underlying the art and science, and in personality those desirable characteristics which it is the ambition of right-thinking men to emulate. Consequently, the announcement of the appointment of Charles F. Scott to the chair of electrical engineering at Yale University is a matter for commendation and is a source of gratification that American engineering has produced such a type of professional utilitarianism as Mr. Scott represents.

Charles F. Scott has been well and favorably known to the electrical fraternity for a long period. He was born in 1864, at Athens, O., his early education being obtained at the Ohio University of Athens and later at the Ohio State University of Columbus, from which latter he graduated in 1885 with honors. He subsequently took a post-graduate course at Johns Hopkins University, at the same time teaching in the Baltimore & Ohio Railroad apprenticeship school. He then went into connection with a company that was manufacturing current

lighting plant in the Baldwin Locomotive Works.

Mr. Scott entered the testing department of the Westinghouse Electric & Manufacturing Company in the summer of 1888, commencing on night duty in the dynamo room, from which he graduated to the laboratory, where he assisted Nikola Tesla in his work on alternating-current motors. Later on he was given charge of the experimental work of the Tesla motor. After a time he was appointed assistant electrician. In 1897 he was made chief electrician of the company, continuing in that



CHARLES F. SCOTT.
Who Will Teach Electrical Engineering at Yale.

post until 1904, when he became consulting engineer of the company, which position he has held ever since.

Mr. Scott has represented the Westinghouse interests upon many notable occasions, has contributed a great many papers and reports to the national engineering societies, has been a prolific contributor to the technical press and has taken a leading part in the discussion of various phases of electrical development before the American Institute of Electrical Engineers and other technical and engineering societies. He has given the subject of the education

of the electrical engineer a great deal of study and his addresses on this subject have indicated a comprehensive knowledge of the duties and requirements of the competent instructor and his relation to the peculiar human problem presented by the technical student.

Mr. Scott was president of the Engineers' Society of Western Pennsylvania in 1902 and was president of the American Institute of Electrical Engineers in 1902 and 1903. He was chairman of the building committee and has always been an indefatigable worker in the cause of his brother engineers. He has been an ardent advocate of the system of sections and branches in the American Institute and has taken a very active and personal interest in their success.

Resistance of Mercury at Very Low Temperatures.

In the ELECTRICAL REVIEW AND WESTERN ELECTRICIAN for June 24, results of experiments carried on by H. Kamerlingh Onnes, professor at Leyden, on the resistance of gold and platinum at very low temperatures, were given. He has recently carried out similar experiments upon the resistance of pure mercury at the low temperatures which are obtainable by the use of liquid helium.

It was found that the resistance of solid mercury at 13.9 degrees on the absolute scale is 0.034 times the resistance at zero degrees centigrade (extrapolated); at 4.3 degrees it is 0.00225, while at 3.0 degrees absolute it

falls to less than 0.0001. These experiments add weight to the opinion previously expressed that the electrical resistance of pure metals, if brought to the absolute zero, would become zero, or at least differ inappreciably from zero.

In the course of these experiments it was demonstrated that liquid helium is an excellent insulator. It was consequently possible to make the resistance measurements with bare wires. It was also shown that liquid helium could be successfully transferred from the apparatus in which it was liquified to another vessel.