LETTER FROM GRADUATE

By Mr. Clarence Renshaw.

To the Editor of the Tech—

Just when or why I became interested in electrical matters, I can not really definitely say. It is because of some ar- rangements of the Physics Department which I made to use at the end of the year—abroad a personal character of the work. A student is invited to prepare a thesis on some technical and the economic side of electrical study, accompanied by the presentation of a formal candidates for the degree of Doctor of Philosophy by the award of the degree of Doctor of a thesis of high grade is attested to. To provide such an opportunity, the Institute now offers advanced instruction and facilities for research in all departments of instruction and research, whether or not a particular fitness for such work, certain restrictions often being placed in the way of free tuition in less than a year. Soon after I obtained the diploma, I became interested in the idea that all college-trained electrical engineers were helpless when they went on graduating. I decided that I would not go to college, but would devote my entire employment in some electrical factory and my way up. I made a definite decision to adopt an Electrical Engineer- ing as a profession; it seemed to fol- low as a matter of course. During my term at the high school, I became imbued in some way with the idea that all college-trained electrical engineers were helpless when they went on graduating. I decided that I would not go to college, but would devote my entire employment in some electrical factory and my way up. I made a definite decision to adopt an Electrical Engineer- ing as a profession; it seemed to fol- low as a matter of course. I spent by a student on work of this kind or more years could be profitably spent by a student on work of this kind. At the Institute a certain amount of study was offered, varying in value from free tuition to free tuition plus five hundred dollars. As an attestation of the suc- cessful completion of one year’s advanced Study and of the presentation of a satisfactory thesis on some original investigation the degree of Master of Science is awarded. Two or more years of such study, accompanied by the presentation of a thesis of high grade is awarded. In the department of Electrical Engi- neering there are at present a number of graduate students, both of which are formally candidates for the degree of Doctor of Engineering and three for the degree of Master of Science. These men are taking advanced courses in both the technical and the economic side of elec- trical engineering, advanced mathematics, physics, chemical engineering, etc., and in addition meet once a week with the entire instructing staff of the department for the review and discussion of the most important articles appearing in both English and foreign technical journals.

The major portion of the time of such men, however, is devoted to experi- mental research. I have in progress are the following: Experimetal study of the changes produced in the properties of solid dielec- tric when subjected to high electric stresses, with special reference to the ef- fect of such changes on the dielectric constant of the cell when two wires of equal potential gradient in a cell having an iron core when a given voltage is impressed across its terminals, with special reference to the effect of the end turns of a transformer winding when switched into circuit. Experimental study of the effect of heat treatment on the magnetic and electric properties of silicon iron, together with a heliographic study of the changes in structure produced by such treatment. The investigations have been undertaken with the hope of arriving at some definite results which may be of service in the various effects produced.

Study of a method of determination of the breaking strength, definition, and point of rupture of wooden transmission poles when subjected to lateral stresses, with special reference to the effect of the nature of the soil in which the poles are set.

GRADUATE WORK

(Continued from page 49.)

Professor Harold Pender.

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