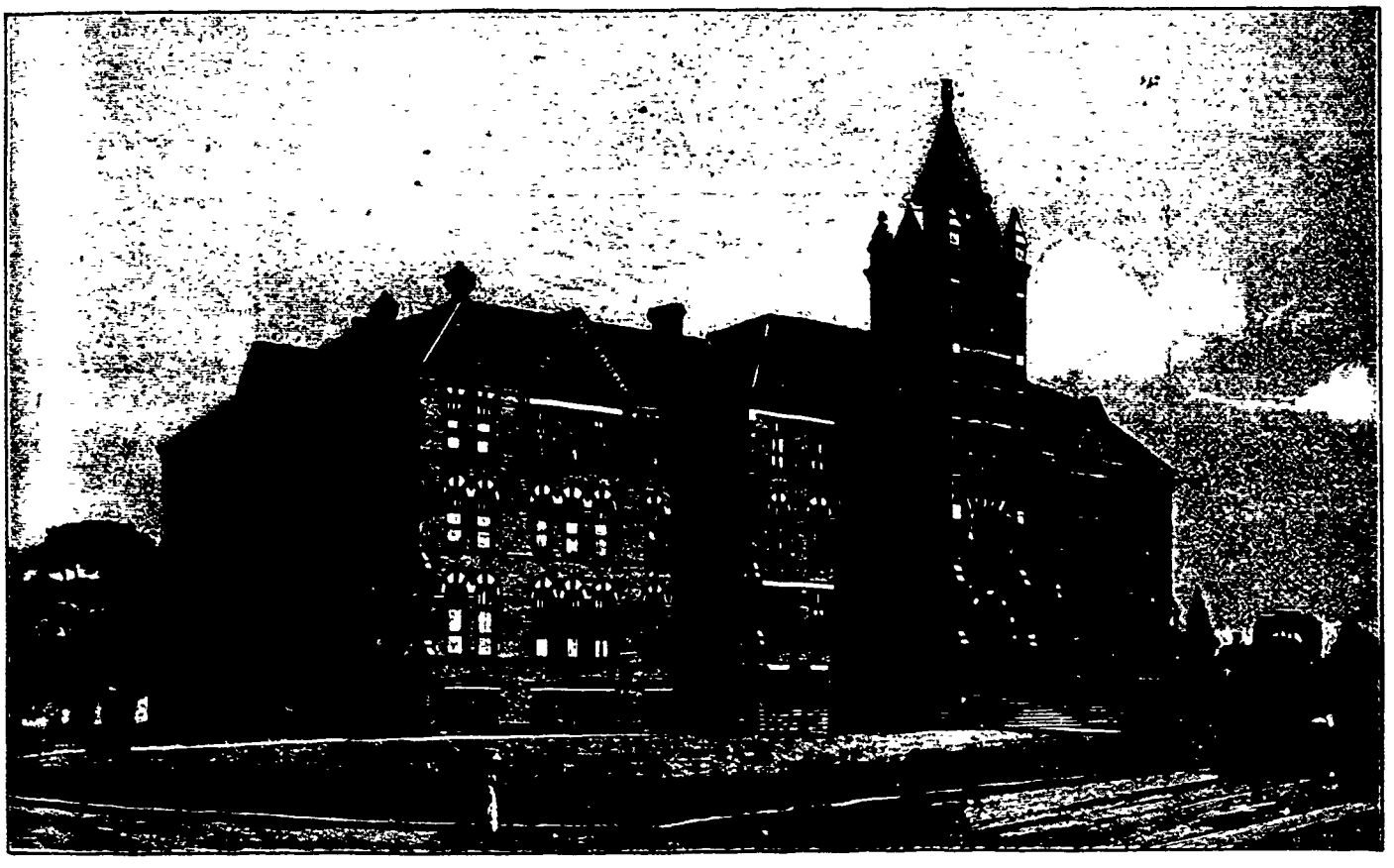
SCHOOL OF PRACTICAL SCIENCE, TORONTO.

WITH the accompanying illustrations of the School of Practical Science, Toronto, are presented a few facts concerning the history and work of the institution, which should have an interest for most of our readers, more particularly young men who are considering the subject of acquiring a technical education which will qualify them for positions in the mechanical world.

In the session of 1877 the Legislative Assembly gave its sanction to the establishment of a School of Practical Science on the basis proposed in a memorandum of the Minister of Education.

By the scheme thus approved of, the goverment effected an arrangement with the Council of University College whereby the students of the School of Practical Science enjoyed full advantage of the instruction given by its professors and lecturers in all the departments of science which were embraced in the work of the School. This arrangement was brought to an end in 1889 by the transfer of the departments in science above referred to, from University College to the University of Toronto under the operation of the University Federation Act.



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In order that the students of the School might continue to enjoy the advantage of the instruction in the above departments, the Senate of the University of Toronto passed a Statute in October, 1889, affiliating the School to the University, which Statute was confirmed by the Lieutenant-Governor in Council on the 30th day of October, 1889.

By an Order in Council, approved by the Lieutenant-Governor, on the 6th day of November, 1889, a Principal was appointed, and the management of the School was entrusted to a council composed of the Principal as chairman, and the Professors, Lecturers and Demonstrators appointed on the Teaching Faculty of the School.

The Faculty of the School is composed as follows: J. Galbraith, M.A., Assoc. M. Inst. C. E., Principal. Members of the Council:—J. Galbraith, M. A., Assoc. M. Inst. C. E., Professor of Engineering, (Chairman); W. H. Ellis, M.A., M.B., Professor of Applied Chemistry; L. B. Stewart, P.L.S., D.T.S., Lecturer in Surveying (Secretary); C. H. C. Wright, Grad. S.P.S., Lecturer in Architecture; T. R. Rosebrugh, B.A., Grad. S. P. S., Lecturer in Electrical Engineering; Cesare J. Marini, Grad. S.P.S., Lecturer in Sanitary Engineering. Assistant instructor:—W. Ross, B.A., Fellow in Applied Chemistry.

There are five regular departments of instruction, in each of which diplomas are granted, viz.: Civil Engineering (including Mining Engineering); Mechanical and Electrical Engineering; Architecture; Analytical and Applied Chemistry; Assaying and Mining Geology. The instruction given in each of these departments is designed to give the student a thorough knowledge of the scientific principles underlying the practice in the several professions, and also to give him such a training as will make him immediately useful when he enters into active professional work.

The facilities possessed by the School for affording professional instruction are now being largely increased by additions to the building, equipment and teaching staff. An Engineering Laboratory is being formed which will be furnished with testing machines for testing the strength, elasticity and other qualities of materials of construction, and also with an experimental steam plant, consisting of engine, boiler, pumps, etc., for making experiments in the economical use of steam. The laboratory will be provided with pumps, tanks, turbines and other appliances necessary for conducting hydraulic experiments. It will be supplied with all necessary standard gauges, scales and measuring instruments. There will also be a full equipment of dynamos, motors, accumulators, electric lamps, measuring apparatus, etc., for the purpose of instruction in electrical engineering. There will be in connection with the laboratory a machine shop for the purpose of preparing specimens to be tested, making repairs, etc.

The Department of Mechanical and Electrical Engineering is intended to afford the necessary preliminary preparation to students intending to become mechanical and electrical engineers. The subjects of the first year are: Mathematics Euclid, Algebra, Plane Trigonometry; Analytical Plane Geometry. Mechanics—Statics and Dynamics (with special reference to structures and machines). Experimental Physics Light: Use of the Heliostat and Spectroscope, Experiments with Lenses and Mirrors, Theory of the Microscope and of Reflecting instruments. Drawing—Copying from the Flat, Lettering; Graphics; Descriptive Geometry in its application to plane sided solids; Orthographic (including Isometric) and Oblique Projection. Surveying—(Lectures only, applications of Trigonometry and Principles of Measurement). Chemistry—Elementary Chemistry with Laboratory Practice. The subjects of the second year are: Mathematics—Differential and Integral