

THE CANADA
EDUCATIONAL MONTHLY
AND SCHOOL MAGAZINE.

MAY, 1893.

THE MATHEMATICAL CONDITION OF OUR HIGH SCHOOLS.

BY W. J. ROBERTSON. M.A.

I purpose giving, in as brief a space as possible, some thoughts on the present and past condition of Mathematical studies in our Schools and Collegiate Institutes. What I shall say will be, largely, the result of my own experience and observation, an experience and observation extending over some twenty-five years.

As this paper is to be followed by what I hope will be a full expression of opinion, I do not think it advisable to elaborate the points discussed. I shall therefore content myself with a general outline of the present and past policy relating to mathematical studies, and with a few suggestions which may, or may not, meet with the approval of the meeting.

Twenty-five years ago, as some of you will recollect, the mathematical condition of our Schools and Colleges was characterized by an immaturity and a crudeness now scarcely realizable. Rules and formulæ guided the ambitious student through the greater portion of his career. There was a minimum of theory, and a maximum of practice of a certain kind. Muscle, as well as brain, played an important part in the solution of problems—very often muscle more than brain.

In Arithmetic we struggled desperately with Proportion, Alligation and Position. In Algebra our highest ambition was to solve knotty equations. Factoring, except that of the most elementary kind, was an unknown quantity; while of the Theory of Divisors we were in happy ignorance. I have yet a vivid recollection of the difficulties we struggled through during the first year at the University, when called upon to master Permutations, Combinations, Probabilities, and to traverse the profound labyrinth of Algebraic and Trigonometric series. That first year, with its desperate struggles and flounderings and its unsatisfactory attainments, is burned into my memory. In much the same way through the Honor work of four years at the University we passed. What winning a medal in Mathematics twenty years ago meant, with the clumsy mathematical tools at our disposal, is something the modern honor graduate could scarcely comprehend.

When I began my work as a teacher, I had to acquire what a few years later became the ordinary stock-in-trade of the candidate for a first or