SCIENCE

CONTENTS

THE TEACHING OF MATHEMATICS TO STUDENTS OF ENGINEERING[1]

WHAT IS NEEDED IN THE TEACHING OF MATHEMATICS TO STUDENTS OF ENGINEERING? (a) RANGE OF SUBJECTS; (b) EXTENT IN THE VARIOUS SUBJECTS; (c) METHODS OF PRESENTATION; (d) CHIEF AIMS.

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I want to emphasize the point which Mr. Scott has just touched on, and that is that we often attempt too early to teach the subjects that require mature and reflecting minds. I want to tell you a story, a true biography of some one you all know of. He went through, in the city of New York, the whole range of mathematics, including analytic geometry and calculus. He learned his formulæ and definitions and "passed" in some manner, but, he told me, he did not know anything about them. He believed he was a dunce, and whenever he was required to make an intelligible demonstration, he could not do it; his teachers and his parents concluded that he was a dunce in mathematics, and could

[1] General discussion following the presentation of four formal papers (see SCIENCE, July 17, 24 and 31, 1908), and of the eight prepared discussions (see SCIENCE, August 7 and 28, 1908). Presented before Sections D and A of the American Association for the Advancement of Science and the Chicago Section of the American Mathematical Society, at the Chicago meeting, December 31, 1907.