contribution to the teaching of algebra that has yet appeared. Teachers who know our American problem, who are well enough balanced not to be enticed into fields that are certain to resist cultivation at the present time in this country, and who are searching for sane methods of reform, should read the pages which Dr. Nunn has here written with such care and erudition, and with such force and clearness.

DAVID EUGENE SMITH.

Syllabus of Mathematics. A symposium compiled by the Committee on the Teaching of Mathematics to Students of Engineering. Published by the Society for the Promotion of Engineering Education, Ithaca, N. Y., 1912. 136 pp.

THE purpose of this syllabus is to collect those principles and methods of mathematics which should constitute the minimum mathematical equipment of the student of engineering, or "those things for which a student ought never to be obliged to refer to any book—the things which he should have constantly at his fingers' ends." The book contains separate syllabi on elementary algebra (14 pages), elementary geometry and mensuration (7 pages), plane trigonometry (19 pages), analytic geometry (28 pages), differential and integral calculus (44 pages), and complex quantities (3 pages) together with a report of the discussion of these syllabi at the Pittsburgh meeting of the Society (14 pages).

Such syllabi will be of great value to students or teachers who wish to review the essentials of elementary mathematics courses. They will especially aid those students who end courses without proper perspectives. However, some may see danger of low standards in so much stress upon the *minimum* mathematical equipment of an engineer. The ideal of the committee is hardly realized, for few engineers "know by heart" and never need to "look up in a book" all the material in these syllabi. While admitting the value of such synopses of minimum essentials, yet as pointed out in one discussion (page 126), there is also need for lists of *all* the topics and principles that should be included in mathematics courses for engineers since there is some danger of too little rather than too great mathematical equipment.

Only few illustrative problems appear. A valuable supplement would be two sets of problems; one set giving an illustrative problem corresponding to each principle; the