development of the theory, whether great or small. For many vears the theory seemed to belong especially to German mathemati ians; but the author believes that he has overlooked little of importance, and that he has been impartial in his treatment of the subject.

An Introduction to the Logic of Algebra. By Ellery W. Davis. New York, Wiley. 8°. \$1.50.

As the author puts it, this book is precisely described by the title, and is mainly the outgrowth of a conviction that the logic of algebra is a very much neglected study. We believe it to be the conviction of many teachers of mathematics that one trouble with studen's in failing to understand the subject is that they look too far. Each step in mathematical reasoning is simple in itself, and the difficulty comes in in deciding what shall be the next step in any process of mathematical reasoning.

Professor Davis, who is, by the way, the professor of mathe matics in the University of South Carolina, has certainly produced a unique book, and one that will be of great interest to teachers of algebra; but the question naturally occurs to one that possibly he may have made to appear complicated what heretofore has been more or less readily accepted by students. It is quite true that the processes of algebra are simple and easily taught, and that they are taught mainly for the sake of the processes rather than for the sake of the discipline,—that is, they are taught for the uses to which they may be put,—and it is to be feared that if too much attention is paid to the reasoning which underlies the processes, which has been generally slurred over or even absolutely ignored, the student may think there is more in it than there really is, and become correspondingly confused.

#### AMONG THE PUBLISHERS.

THOSE having young persons in their charge whom they would interest in science should write to Gustav Guttenberg, care of the Central High School, Pittsburgh, Penn. Mr. Guttenberg carries on by correspondence classes in the study of mineralogy, and has just issued the "third grade," as he calls it, of his "Course." This pamphlet is especially devoted to the determination of ores. The methods of determination by blowpipe analysis are treated of in the first part of the book; and the closing chapters are devoted to the determination of the minerals in Collection 3, so called, which contains thirty or forty specimens sent out in a neat wooden box about seven inches square by an inch and a half deep. Those older persons who are anxious to develop some hobby will also find something of interest in Mr. Guttenberg's

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-The October number of the New England Magazine is first and foremost a cotton centennial number. The two principal illustrated articles are on "Pawtucket and the Slater Centennial" and "The Cotton Industry in New England." The agricultural interest, to which so much attention was paid in the last number of this magazine, receives further attention in three articles in the present number; a general article on 'Agricultural Education,"

by Mr. Reeve; an illustrated article on the Massachusetts Agricultural College, by President Goodell of the college; and a story entitled "John Toner's Scheme."

-The current (Oct. 4) issue of Architecture and Building is devoted to the study of schoolhouse architecture from both the point of view of the teacher and the architect. The issue contains twenty-one different designs by architects who have achieved distinction in designing buildings for school purposes. The number contains sixteen double-page plates.

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