

However, he has chosen a title for his book which permits considerable freedom both as to the matter presented and as to the order of presentation.

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*Neuere Darstellungen der Grundprobleme der reinen Mathematik im Bereiche der Mittelschule.* By ALOIS LANNER. Berlin, Otto Salle, 1907. viii + 192 pp. Price, 3 Marks.

ONE of the distinctive features of the teaching of elementary mathematics in the latter part of the nineteenth century was the influx of a large body of new theory relating to the fundamental laws underlying the common processes. Perhaps the best evidence of this is found in the lectures of Weierstrass, and among the best exponents of the movement is Stolz's "Allgemeine Arithmetik." It was natural to expect, however, that Weierstrass would never directly reach the teaching body of Germany, and that works as elaborate as those of Stolz would have but little practical influence in the schools.

The opening of the twentieth century is seeing an effort to bring the results of such labors as these to the attention of those who teach the elements. Naturally this involves a great deal of experiment. The college professor, with little knowledge of the powers and interests and immediate needs of preparatory students, is liable to insist upon secure foundations for every process, while the teacher in the classroom is equally likely to err the other way. For those who try to see the argument of each of these types, and to weigh them judiciously, any effort to simplify the labors of the theorists and to present them in concise form, is very welcome.

Dr. Lanner has attempted exactly the work. He has not written a textbook, nor a work on the theory of teaching, but he has prepared a simple treatise that seeks to supplement each. In brief, it may be described as a handbook, giving in simple form the principles underlying each of the chapters of arithmetic and algebra as taken up in the elementary courses, and offering material for supplementing the theory of the textbook.

The general nature of the work can best be judged by a few of the chapter heads: Gleichheit und Grösse; Die natürlichen Zahlen, followed by the various operations; Erweiterung des Zahlenggebietes durch die Subtraktion, introducing negative numbers; Die Teilbarkeit der ganzen Zahlen, both absolute