

books, Maclaurin, Saunderson, Wood, Colenso, left this point, to a great extent, unsettled. Todhunter in this, as in many other points, pursued a singular course. His "Algebra" (I mean the larger "Algebra") is virtually two books, not one. While all the main part of the work is based on old definitions, methods, and processes, there are yet scattered through the book passages enough to form a modern "Algebra" when put together consecutively. These passages, however, are placed, it would almost seem purposely, where no student would be likely to find them. For example, while the whole book contains 814 articles, the articles 805 and 808 treat, in such a condensed form as to greatly diminish their value, of matters which it is of the greatest importance that the student should know at the very outset of his studies in algebra. With respect to $\sqrt{a}$, the chapter on surds is finished, the succeeding chapter on quadratic equations is nearly finished, before the difficulty about the meaning of the symbol is cleared up, and then rather by implication than by definite state-

ment. In Chrystal's "Algebra" $\sqrt{a}$ is taken to mean the positive root of a , and confusion is thus avoided. But in the article on Algebra by the late Professor Kelland, in the last edition of the *Encyclopædia Britannica*, we are virtually told that, if u and v be rational integral functions of x , the four equations $\sqrt{u} + \sqrt{v} = c$, $\sqrt{u} - \sqrt{v} = c$, $-\sqrt{u} + \sqrt{v} = c$, $-\sqrt{u} - \sqrt{v} = c$ are, algebraically speaking, the same equation; while Todhunter and Chrystal both tell us they are four different equations. It may be mentioned that Professor Kelland, in his Preface to his "Algebra" opposed the views of Dean Peacock as to the foundations of algebra, and in many points showed his sympathy with some of the views of Frenet and Masères. Two of the most recent text-books are those by Charles Smith and by Rouse Ball. Smith follows Kelland, while Ball follows Chrystal. Whatever may be the best way of regarding this matter, it is at any rate important for teachers that the point should be finally settled.—*The Educational Times*.

(To be continued.)

TEACHERS' SALARIES AND PENSIONS.

THE status of public school teachers in this country illustrates in many respects the peculiar inconsistencies of American character and policies. We regard our institutions as the sum of human perfection until it is clearly proved to us that they are not, and we receive the evidence with the air of having made a flattering discovery. Within the memory of a generation we seriously believed that our schools were the unrivalled models of the world; the knowledge that this is a mistake has not disconcerted us. This complacency is not wholly without reason. So far as principles go, our own school system is indeed matchless; it contains

potentially all that idealists have dreamed or philosophers formulated, but its practical elaboration is as yet far below their grand conceptions. The perfection of details, which is necessarily a work of time under all circumstances, goes on the more slowly with us on account of our local independence and our very general absorption in personal affairs. The sort of negative policy which characterizes our dealings with public school teachers does not, however, grow entirely out of our national complacency or our universal devotion to business. We are all Jeffersonians to the extent that we have a hatred and a horror of caste, and we fancy a con-