

more than appearances. Further, although science must hold the facts it discovers to be independent of the opinion of any person or persons, it by no means follows that it need insist on their being independent of the final upshot of sufficient investigation, nor that it need hold them to be independent of the creative thought of the Deity. As yet, science does not decide either for or against any of the current systems of philosophy. Some are undoubtedly more in harmony with its spirit than others; but we can hardly reckon among the former a theory so averse to the conceptions of the differential calculus, and so prone to hard and discrete distinctions, as the one we have noticed. It is, however, a strongly characterized and scholarly piece of work, doing honor to American thought; and it is much to be desired that the world should see the system developed in its entirety.

1889

48 (13 June 1889) 488

## THE CENTURY DICTIONARY

TO THE EDITOR OF THE NATION:

SIR: Your recent review of the 'Century Dictionary' ought to be supplemented by some remarks upon its definitions of terms in physical science, while there is still time to make corrections. The definitions in question are, in many cases, insufficient, inaccurate, and confused in a degree which is really remarkable. Take, for example, the description of Ptolemy's 'Almagest,' "a book or collection of problems in astronomy and geometry, . . . so named by the Arabs because it was reckoned the greatest work on the subjects." Far from being a collection of problems, I doubt if there is a single problem in geometry or astronomy in the entire work. In no sense of the word is it a book of geometry, nor could it ever have been considered as such. While thus giving an erroneous description, what the work really is—a system of astronomy based upon the doctrine that the earth remains immovable in the centre of the heavens—is entirely omitted. In a rapid glance through a portion of the published pages (A-Appet), I have noticed a number of other cases of insufficient, erroneous, or misleading definitions or statements. The definition of *albedo* is confused and misleading. That of *eccentric anomaly* is entirely wrong. *Absorption lines* are described as occurring just under the conditions when they are impossible. *Law of action and reaction* is accurate, with the exception of a sentence which is so far wrong that I suspect it to have been interpolated after the original article left the writer's hands. *Apochromatic* is insufficiently defined, and is illustrated by a quotation as unintelligible as could readily be found. *Alidade* and *achromatic lens* contain misstatements less remarkable for their seriousness than for their existence.

So many defects in a single subject and in so small a fraction of the book would seem to indicate that the details of the work are not such as we should expect from the attention and care with which the editor and publishers have devised and executed their part of the plan. It ought to be added that, so far as I have noticed, the definitions in mathematics and mathematical physics are not subject to this criticism.

S. NEWCOMB.

WASHINGTON, June 8.

48 (20 June 1889) 504-505

## THE CENTURY DICTIONARY

TO THE EDITOR OF THE NATION:

SIR: The faults which Prof. Newcomb finds with my definitions in the Century Dictionary are, I trust, at all events, confined to the earlier pages, where I was unable to see proofs of a part of what I wrote. I ask leave to illustrate my method of preparing definitions, in the instances of the five in my department to which he objects. I take these up in their alphabetical order.