

numerically less." The answer given to example 17, page 213, is incorrect. There are a few typographical errors such as $(2n + 1)$ instead of $(2n - 1)$ in example 2, page 87, but they are so trivial as to give no serious trouble and the book as a whole is quite free from them.

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Das Prinzip der Erhaltung der Energie. Von MAX PLANCK.
Zweite Auflage. Leipzig, B. G. Teubner, 1908. xvi + 278 pp.

AMONG the many series of books published under some collective title, one which is at the same time scientific and to a certain extent suited to intelligent popular consumption is *Wissenschaft und Hypothese*. It is the German translation of Poincaré's *La Science et l' Hypothèse*, which has the position of volume I and which apparently has given its title to the whole series. Other volumes which have already appeared are Poincaré's *La Valeur de la Science* (translated), Lipps's *Mythenbildung und Erkenntnis*, Bonola's *Die nichteuklidische Geometrie* (from the Italian), G. Darwin's *Ebbe und Flut* (from the English), Hilbert's *Grundlagen der Geometrie*, Picard's *La Science moderne* (translated), and Planck's *Das Prinzip der Erhaltung der Energie*. From these titles it will appear that the series does not consist chiefly of books written especially for it, but is made up at least in large part of works already written in one language or another and assembled (after translation if need be) into one group. Indeed, some of the volumes were already several years old when the series was started, and among the oldest is Planck's which now celebrates the attainment of its majority with a second edition.

Of such well known and acknowledged value and interest is Planck's discussion of the historical development of the principle of the conservation of energy, of the formation and proof of the principle, and of the different kinds of energy, that little need be said of this second edition, which is in no essential way different from the first. The development of science in the last quarter century has offered much that might be added to the book, but has disclosed nothing that need be taken from it. To this statement one possible exception may be taken in view of Minkowski's recent presentation of electromagnetic and mechanical theories from the point of view of the principle of relativity. In the fundamental matrices which Minkowski sets up, the energy is but one element of many and has no apparent invariance or predominating importance!

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