The appendix by the nephew, the younger Moritz, is one of those odd pieces of speculative effort to solve the most abstruse problems of science which are only possible when the range of knowledge is very limited in the speculator's mind. He puts forward the hypothesis that life arose while the earth was a core of liquid fire surrounded by gases; an electric spark caused an explosion in the gaseous envelope, which produced organic compounds; the compound at once existed in the form of separate living particles; the circulation in the atmosphere caused the particles to enter into vortices, and when the centrifugal motion predominated pseudopodia were thrown out, when the centripetal force got the control a nucleus was generated; and there have been nuclei ever since. It will be remembered that when the bean split itself with laughing, it was sewed up by the tailor, and all beans have had black seams ever since; but who can tell us how the nucleus and the bean got hold of such enduring heredity of acquired characteristics? In the following chapters of the appendix there is more regard paid to the conceivable: yet throughout, the editor is seen not to be grown to his work; for example, in discussing the planorbis shells at Steinheim, he makes no mention of Professor Hyatt's work.

The editor has fulfilled a graceful and acceptable labor in gathering together his uncle's papers, and we hope that as now collected they may secure renewed attention, not to Moritz Wagner's migration theory, but to the peculiar facts of geographical distribution which led to the theory, and have an important bearing on the problem of natural selection. CHARLES S. MINOT.

Electric Transmission of Energy, and its Transformation, Subdivision, and Distribution. By GISBERT KAPP. New York, Van Nostrand. 12°. $3.

THIS is the second edition of a work which first appeared some three or four years ago, a notice of it being printed in these columns at the time. It belongs to the well-known "Specialists' Series," intended mainly for the use of students and electrical engineers; though to all persons interested in the special field it occupies it will prove useful and valuable, especially so to students of what may be termed "the comparative anatomy of dynamos and motors."

We are glad to see that the changes necessitated in such a work by the progress of electrical science during the past few years have been made, "bringing the book up to date," as the author says. Among the changes made, it may be mentioned that the author's method for the predetermination of the characteristics of dynamos has been introduced, thereby making the theoretical part of the work more complete. Though this now well-known method had been made use of by Mr. Kapp before the appearance of the first edition of the work, he had not sufficient confidence in its general applicability to give it a place in the book. Since that time, however, the results of the method, as applied by other electrical engineers, have been so satisfactory that it has been deemed worthy of a place in the volume, and justly so.

In the portion of the volume devoted to practical electrics many noticeable alterations have been made, due mainly to recent progress in the construction of dynamos. Obsolete machines are no longer mentioned, and descriptions of new types, or new modifications of previous types, are introduced, data comprising the leading features of such machines and the results of actual tests being given whenever practicable. This is done because the author believes that precise information regarding a few characteristic features in the design of successful dynamos are of much greater value to the electrician than more extended general descriptions.

The portion of the work devoted to electric railways has received but slight addition, notwithstanding the great progress made in that department during the past few years. The reason for this seeming omission is obvious. To do the subject justice would require a volume larger than that in which a single chapter only can be spared it without infringing on other portions of the field, all of which are equally important in a general survey such as this aims to be.

The transmission of energy by alternating currents is not touched upon, that phase of electrical development being still in the experimental stage (except for lighting); though Mr. Kapp considers it possible, that, "for the transmission of very large powers over very long distances, the alternating current may eventually prove more convenient than the continuous current."

The book is an important one, covering a field through which Progress seems to travel in seven-league boots; and the brief interval between the appearance of the two editions seems to be a very close measure of the time between the experimental stage and the complete commercial success of long-distance transmission of electrical energy.

The Economic Basis of Protection. By SIMON N. PATTEN. Philadelphia, Lippincott. 12°. $1.

THIS book is a plea for the high tariff; but it is one of the least efficient of such pleas that we have met with. It is a mass of confusion, the author often getting bewildered with his own argument,—a fact that will not surprise those who have read his other works. He uses the deductive method exclusively, and is not at all particular about his premises. Indeed, he expressly says that "the theory of a subject must always be developed previous to any intelligent study of the facts" (p. 9); and he has certainly applied this rule faithfully in the present case. We cannot undertake to give an analysis of his arguments here; but one of his chief points is the endeavor to show that free trade fos-

Publications received at Editor's Office, April 28-May 10.

AFRICA, Pictorial. New York and Chicago, Fleming H. Revell. 396 p. $2.50.

CARNOT, N.-L.-S. Reflections on the Motive Power of Heat and on Machines fitted to Develop that Power. Ed. by R. H. Thurston. New York, Wiley. 260 p. 12°. $2.

CHAMBERS, G. F. A Handbook of Descriptive and Practical Astronomy. II. Instruments and Practical Astronomy. 4th ed. Oxford, Clarendon Pr. 8°. (New York, Macmillan, $5.25.)

GEOLOGISK kart over De skandinaviske lande og Finland. Udgivet af Hans Reusch. New York, N. D. C. Hodges, 47 Lafayette Place f°. 40 cents.

GREEN, W. S. Among the Selkirk Glaciers. London and New York, Macmillan & Co. 251 p. 12°. $2 25.

PATTEN, S. The Economic Basis of Protection. Philadelphia, Lippincott. 144 p. 12°. $1.

TUTHILL, Mrs. L. C. The True and the Beautiful in Nature, Art, Morals, and Religion. Selected from the works of John Ruskin, with a notice of the author. 2 vols. New York, Wiley. 638 p. 12°. $2.

WHITING, H. A Short Course of Experiments in Physical Measurement. Part I. Density, Heat, Light and Sound. Cambridge, Mass., John Wilson & Son. 278 p. 8°.