with the naked-eye estimation of their serial magnitudes, to find what is the relation between the two series; i.e., as the magnitudes increase by apparently equal intervals of brightness, how do the measured illuminating-powers increase? He finds, that, as the psychophysic law requires, the latter increase by a constant *ratio*, but that this ratio is not exactly constant, but decreases slightly (according to a formula given in the paper) with the brightness of the stars.

The critical portion of the journal will perhaps arouse more comment than the original part, because it comes more in conflict with current views on psychological topics. While not taking an aggressive tone, the policy of the journal is evidently to plainly and forcibly state the broader inferences upheld by a technical study of mental facts, and, if necessary, to fearlessly combat views opposed to or neglecting such considerations. The able detailed review of the work of the English Society for Psychic Research is sure to attract attention. The point of view is decidedly negative. The evidence in favor of 'telepathy' is regarded as entirely inconclusive by lack of a host of necessary precautions, as well as a consideration of other modes of explanation. It is an aspect of the question the importance of which will be more and more generally recognized as the first gust of enthusiasm excited by apparently wonderful results subsides. A review of the psychological text-books of Professors McCosh, Bowne, and Dewey is a destructive criticism of the standpoints from which these writers set out, while Professor Ladd's 'Physiological Psychology' receives very just proportions of praise and blame.

In addition to this, there is a review of the 'brain-localization' question by Dr. Starr, of Mr. Galton's views on the persistency of type by Professor Brooks, of Delage's researches on the functions of the semicircular canals by Professor Sewell, and a note on logical machines by Mr. C. S. Peirce, together with a large number of useful minor reviews and notes. An undue number of misprints disfigure some of the pages.

Greeko-Slavonic Literature. By M. GASTER. London, Trübner. 8°.

THE importance of researches on the growth of folk-lore is more and more recognized. While in the early times of this study the lore of each nation was considered as an outcome of its ancient mythology, later on the interdependence of the traditions of nations widely separated in space and time was more clearly understood, and researches on the origin and migration of legends became of greater importance. While this historical point of view is the leading one in the inquiries of most students, the psychological character of each nation as influencing its folk-lore must not be disregarded. The present volume treats of the connection between European folk-lore and the early literature of Slavonic nations. The author treats first of the influence of Bogomilism upon the religious literature which later on became folk-literature of the European nations. He traces the latter back to Greek texts which came to Constantinople from the east, and passed thence to the Bogomils. A second source, equally Oriental in its origin, was supplied by Jewish legends. He discusses the Apocrypha of the Old and New Testaments in its influence upon European literature, and shows in a few instances the interesting phenomena of their transition from tales into ballads, and from ballads into lyrics, in which the name of the hero disappears gradually, and a personal song is changed into a general impersonal one. The author finds in the belief of witchcraft in the Graal legend and other traditions, not those relics of hoary antiquity which they are generally considered, and as which they have become the object of a reconstructive mythology, but a result of the Christian legends and myths, which became the property of the people at a comparatively recent date. In discussing the origin of the romantic literature, Gaster favors the opinion that it was also introduced into Europe by the Slavonic nations, and rejects Benfey's theory that it was communicated to the western people by the Mongolians. In an appendix Gaster tries to solve the problem of the origin of the Glagolitic alphabet, and shows that a connection with the Armenian alphabet is at least probable. The whole volume is an extremely interesting study of the growth of folk-literature, and shows how intricate the channels are from which its sources flow. Great care must be taken in treating questions of this kind, particularly among nations which have no literature, where historical facts, upon which the study must be founded, are entirely wanting. Particularly in this case rash conclusions must not be made until we are better acquainted with the psychological laws of the growth of folk-lore. The historical method as applied by Gaster is the only one that can lead to satisfactory results, but it must be supplemented by an inquiry into the assimilation of legends by different nations and their blending with the more ancient stock of folk-lore. The latter point has been disregarded by the author, and therefore some of his conclusions on the Oriental origin of certain legends cannot be accepted until fuller proof is given.

An Elementary Treatise on Analytical Mechanics. By WILLIAM G. PECK. New York, Barnes. 12°.

THIS is, as its title implies, an elementary treatise on the subject named, and is of substantially the same character as the majority of works of similar purpose, intended for the introduction of the student into the study of analytical mechanics. Dr. Peck, however, has the advantage, as an author, of having had an unusually extended and very fortunate experience in teaching, and his book may be taken as the embodiment of so much of the subject as he has found the average college-man capable of taking up during the average college course of advanced mathematics. It is intended, as stated in the preface, to include all the principles needed by students in technical courses of study, and the calculus is used to a moderate extent in their development.

This work is by no means such a treatise as that of Bartlett, and is necessarily given a much more condensed and less logical form. It covers, however, the full range of work which the student can be ordinarily expected to take, and it may be made to pave the way most satisfactorily to the use of advanced treatises and the works on applied mechanics which are now studied in the best technical schools and schools of engineering. Its accuracy is vouched for by the reputation and experience of its author, and its plan may be seen by inspection to be good and satisfactorily complete. Kinetics and the doctrine of energy are given the place to which they are entitled, — a place denied them in books following the older writers on this subject. We should suggest that the discussion of the mechanics of gases and vapors might be enlarged profitably by the introduction of the pure thermodynamics of the subject, and that the last chapter, that on machines, might be improved by the revision of the descriptive matter, and by a study of modern examples of such apparatus. No criticism lies against this work especially; but it is time that all these elementary treatises on this subject were pruned of their antique illustrations, — the compound balance, for example, — and modern sketches substituted, such, for example, as Dr. Peck gives us in his article on the rotary-pump. On the whole, this book is one of the very best of its class; and the writer has found, by experience in its use, that it is a most excellent text-book.

NOTES AND NEWS.

THE account of the recent trial in England of the Spanish cruiser 'Reina Regente,' resulting in the development of a speed of 20.6 knots over a measured mile, has been received with keen interest at the Navy Department, where every effort has been made to design vessels of like high speed to meet the demands of Congress. The number of war-ships able to make above 19 knots is much smaller than is commonly supposed, and, in fact, the records of the department show that but two other vessels have been able to attain that speed. These are the 'Dogall,' built in England for the Italian Government, which made one run over a measured mile at the rate of 19.66 knots per hour; and the 'Orlando,' built by private contractors for the English Government, which made one run at the rate of 19.25 knots per hour. It is said at the department that these two vessels, together with the 'Reina Regente,' are the outcome of efforts to reach 19 knots, running through many years; and the small measure of success attained renders it unsafe to guarantee so high a speed for the cruisers now building, and known as the 19-knot cruisers.

— A complete list of the papers presented at the meeting of the National Academy of Sciences, held at Columbia College, New