masses. It is simple but effective, and so delicate in its indications that the utmost care was necessary to avoid interference for external causes, often difficult to control. Full details are given, as they are of great interest, especially to those who contemplate the use of a quartz torsion fibre. It is interesting to note that the author was never able, throughout a long series of experiments, to control absolutely the zero point of his balance. Although quartz is enormously superior to any other suspension thus far proposed, it is still defective in this respect. For some cause which Dr. Mackenzie is unable to give, the zero was constantly shifting. He does not clearly say whether this partakes of the nature of a 'drift' in one direction or not. In a long series of experiments, made by direction of the writer of this notice, for the purpose of trying to improve the existing form of the vertical force magnetometer, quartz fibres were used. Although apparently well protected from convection currents and changes in temperature, the mirror attached to them *was never actually at rest.* When this shifting and drifting is small, as it usually is, and observations are of the nature of those described by Dr. Mackenzie, that is, not in themselves extending over long periods, the error arising from it may be readily and correctly eliminated.

The apparatus used for observing the attraction of isotropic masses was of the same character, and similar to that used by Professer Boys. The conclusion reached, the experimental results being in agreement within one or two-tenths of one per cent., is that neither in the case of crystalline nor isotropic masses was any deviation from the law of Newton detected. The author fails to note the very ingenious and interesting method of attacking the problem of the attraction of crystalline masses proposed by Poynting in his Adams Prize Essay on the Density of the Earth. Poynting proposes to test the question of there being different properties as to attraction along different axes of crystals by the *directive action* which must exist when one sphere of a crystal is in the field of another. He made some experiments along that line, and his work probably preceded by a year or two that of Dr. Mackenzie. At the present moment, with library out of reach, I am unable to say whether he has published any further results.

The *Influence of Temperature on the Transparency of Solutions*, by E. S. Nichols and Mary C. Spencer, is another prominent article of the Review. Transparency to various wave-lengths was tested and a number of color solutions were examined. There are also papers on the Electric Conductivity of Certain Salt Solutions, by A. C. MacGregory, a continuation of the paper on Forces between Fine Solid Particles totally Immersed in Liquids and among the minor contributions is one interesting and useful on the Variation of Internal Resistance of a Voltaic Cell with Current, by Professor Carhart. T. C. M.

NEW BOOKS.

Die Chemie des Chlorophylls. L. Marchlewski. Hamburg und Leipzig, Leopold Voss. 1895. Pp. iv + 82. M. 2.

Les Aurores polaires. Alfred Angot. Paris, Felix Alcan. 1895. Pp. vii + 315.

Lehrbuch der Allgemeinen Psychologie. Johannes Rehmke. Hamburg und Leipzig, Leopold Voss. 1894. Pp. 582. M. 10.

Iowa Geological Survey, Vol. III. Des Moines, Published for the Iowa Geological Survey. 1895. Pp. 501.

Magnetismus und Hypnotismus. G. W. Gessman. Vienna, A. Hartleben. 2d edition. Pp. xiv + 205.

Bulletin of the Geological Institution of the University of Upsala. Edited by Hj. Sjögren. Upsala, Almqvist & Wiksells. 1893–1894. Pp. 95, 293.