ing of the previous edition. This discovery led to the theory according to which protons and neutrons are regarded as the bricks with which all atomic nuclei are built, and the present book, written by one of the leaders in his field, gives an authoritative and readable account of the theory of nuclear structure and of the experimental results in this field. The book is divided into three parts and the following chapter headings clearly indicate the topics treated. Part I: Stable nuclei. 1. Elementary particles and constituent parts of nuclei. 2. Nuclear binding energy and stability limits. 3. Spins and magnetic moments of nuclei. 4. Electromagnetic radiation of nuclei. Part II: Spontaneous nuclear transformations. 5. Spontaneous $\alpha$-disintegration. 6. $\gamma$-ray emission following $\alpha$-disintegration. 7. Spontaneous $\beta$-disintegration. 8. $\gamma$-ray emission following $\beta$-disintegration. Part III: Nuclear transformations by collisions. 9. Collisions without disintegration. 10. Nuclear reactions. 11. Nuclear reactions essentially involving radiation. 12. Relative abundance and origin of the elements.

F. D. MURNAGHAN

*Lectures on the Mathematical Theory of Electricity.* By F. B. Pidduck. Oxford, Clarendon Press, 1937. 8+110 pp.

This little book, which does not pretend to constitute either a complete or a balanced treatment of electromagnetism, is in the main a collection of very concise solutions of mathematical problems of experimental interest. As with many other British texts, most of the book is devoted to electrostatics and magnetostatics. In fact the law of electromagnetic induction does not appear until page 68, and the complete set of field equations are not stated until within twelve pages of the end of the book. The point of view is that of the generally discarded ether theory. Except for eight exercises for the student, the book contains no problems. References are mostly to Maxwell, A. G. Webster, and the author's *Treatise on Electricity*.

This book provides the student with a useful set of solutions of specific problems, but does not take him far into modern electromagnetic theory.

LEIGH PAGE

*Differentialgeometrie.* Vol. 1. *Raumkurven und Anfänge der Flächentheorie.* By R. Rothe. (Sammlung Göschen, no. 1113.) Berlin and Leipzig, de Gruyter, 1937. 132 pp.

This is intended to be the first volume of a set. The first hundred pages deal with space curves, and the last thirty with surfaces. The book closes with Meusnier's theorem and with some examples of applicability. The line element is introduced, but the second fundamental form and curvatures of surfaces are left to a second volume.

The book is written for students of the maturity of first year graduate students. Discussions and computations are given in enough detail, there are many applications to special cases and it is easy for the reader to see the geometrical meaning of the formulas. Vector notation is used from the start, but nothing more than a knowledge of scalar and vector products is assumed.

The book is not designed as an introduction to the study of quadratic differential forms or of tensor analysis, and everything is in three dimensions. Both the writer and the printer did their work with great care.

K. W. LAMSON

*Projektive Liniengeometrie.* By Robert Sauer. (Göschens Lehrbücherei, group 1, reine und angewandte Mathematik, vol. 23.) Berlin, de Gruyter, 1937. 194 pp.

This book was written with the specific purpose of interesting young mathema-