If the use of this book in the laboratory will cause the student to think, the book will mark the beginning of a new epoch. Even if it should not do as much as that, it is important to cultivate the sense of quantity. The wide scope of the experiments may be inferred from the fact that the authors have included a modification of Buchholz's experiments with tin, stannous chloride and water, p. 119.

Wilder D. Bancroft

Introduction a l'Étude de l'Électricité statique et de Magnétisme. By E. Bichat and R. Blondlot. *Deuxième édition, entièrement refondue.* 14 × 23 cm; pp. viii + 188. Paris: Gauthier-Villars, 1907. Price: paper, 5 francs.—In the first part, on static electricity, the chapters are entitled: fundamental phenomena; action of two electrified masses, one on the other; definitions; theorem of Gauss; potential; experimental study of the electric field; tubes of force and lines of force; propositions in regard to conductors; electrical diagrams; electrical equilibrium; capacity; condensers; work and electrical energy; derived units and the C. G. S. system; electroscopes and electrometers; applications of electrometers; electrical machines; specific inductive power; electric spark; decay of an electrical charge. In the part on magnetism, less than forty pages, the chapters are entitled: magnets and magnetic field; laws of magnetic repulsions and attractions; terrestrial magnetism. The book is avowedly elementary, and is intended to meet the requirements for entering the *École Polytechnique*. On p. 13 the authors give a reproduction of a cut from Coulomb's original memoir.

Wilder D. Bancroft

Le Principe de la Conservation de l'Assise et ses Applications. By Georges Matisse. 16 × 25 cm; pp. 65. Paris: A. Hermann, 1907. Price: paper, 2.50 francs.—Instead of considering the different forms of energy as the products of the potential into the capacity, the author prefers to use the word *assise* instead of *capacité*. As capacity factors for different forms of energy, he takes the quantity of electricity, the entropy, the volume, the distance, the quantity of matter which is measured by the mass.

The author's law of the constancy of the capacity factors rests on the following facts.

1. In an isolated system the total quantity of electricity remains constant.
2. In a reversible transformation constituting a closed cycle, the change of the entropy is zero.
3. The mass of a system in an enclosed space remains constant no matter what physical or chemical changes take place.
4. If a system is enclosed in a rigid envelope, the volume remains constant no matter what physical or chemical changes take place.
5. The rectilinear distance between two fixed points remains constant even though the relative positions of movable points along the line may change.

The "law" can be formulated in the following way: "Physical and chemical changes do not create electricity, space (cubical or linear), entropy, or matter." Comment would seem to be unnecessary.

Wilder D. Bancroft