The practical result of electrolyzing aqueous caustic soda is the decomposition of water, but that is not the case when electrolyzing a concentrated sodium chloride solution. Also, so far as the reviewer knows, nobody makes sodium amalgam commercially and recovers the mercury by distillation, p. 318.

The reviewer would like to say something about the alleged argument on p. 336 to show that there is no difference between solvent and solute, but it would not do any good and, after all, the matter is one on which a difference of opinion is permissible.

Though one cannot conscientiously praise the arrangement and though a good deal of the physical chemistry is unfortunate either in wording or in application, it must be recognized that the book contains a large amount of useful information and that in some cases one runs across information which is not generally familiar. As an instance of this, the reviewer takes pleasure in quoting the following passage from p. 181.

"A solution of ferrous sulphate is precipitated with an excess of sodium hydroxide and warmed; if hydroxylamine (or one of its salts) is now added to the green ferrous hydroxide, red ferric hydroxide is formed very quickly, the hydroxylamine being reduced in this alkaline solution to ammonia. On acidifying, an acid solution of a ferric salt is obtained; if this is treated with a hydroxylamine salt, it is suddenly decolorized because of reduction to ferrous salt, the hydroxylamine being now in the oxidized condition in the acid solution."

The translator has done his work well.

Wilder D. Bancroft

Gesättigte Salzlösungen vom Standpunkt der Phasenlehre. By Ernst Jänecke. 17 X 24 cm; pp. ix + 187. Halle: Wilhelm Knapp, 1908. Price: paper, 9 marks.—The book is based on lectures given by the author in 1906 at the Polytechnic in Hanover. The subject is treated under the headings: diagram for water and for other one-component systems; classification of salt solutions according to the phase rule; saturated solutions of one salt which crystallizes always without water of crystallization, one salt and water with the salt separating as hydrated or anhydrous salt; solutions of two salts with a common ion, no solid solutions possible; occurrence of solid solutions in saturated solutions of two salts with a common ion; solutions of a salt in basic and acid solvents; aqueous solutions of three salts having the same ion in common; aqueous solutions of four salts having the same ion in common; solutions of reciprocal salt pairs; solutions of reciprocal salt pairs when there is a fifth and sixth salt present as solid phases; salt solutions with three different cations and two anions or three different anions and two cations.

The special feature of the book is the graphical representation of the different equilibria. It seems to the reviewer that it would have been a good plan to have added a chapter on methods of determining the composition of solid phases. The diagrams for distinguishing between a double salt, a solid solution and a mixture can hardly be repeated too often. Wilder D. Bancroft

Die edlen und die radioaktiven Gase. By William Ramsay. Vortrag, gehalten im Österreichischen Ingenieur- u. Architekten-Verein zu Wien. 16 X 24 cm; pp. 39. Leipzig: Akademische Verlagsgesellschaft m. b. H., 1908. Price: linen, 1.40 marks; bound, 1.80 marks.—The author starts with the experiments