Aluminum Transmission Lines. ANON. (*Eng.*, xcv, No. 2455, 86.)—The British Aluminum Company, Limited, of 109 Queen Victoria Street, London, E. C., has published a pamphlet dealing in considerable detail with the use of aluminum for overhead electric transmission lines. It states the general conditions, determines the design of transmission lines, gives a large amount of technical information for both copper and aluminum, from the transmission line point of view, and makes out a strong case for aluminum. This information covers comparative figures for conductivity, weight, tensile strength, temperature resistance effect, and expansion coefficients for the two materials. Questions of deflection and stress, jointing, the losses on lines, etc., are also dealt with, and the official standards for overhead line construction of various countries are given. This work should be consulted by all concerned with actual or projected overhead transmission work.

Weight Efficiency of Electric Motors and Prime Movers. W. B. HIRD. (*Inst. Elect. Engin. Journ.*, xlix, 620.)—An interesting paper which covers these subjects: The comparison of weight efficiencies of electric motors and of different types of prime movers; the choice of the unit for comparison; the general law connecting weight and output adopted as a working hypothesis; graphs embodying the results of investigations on steam engines, steam turbines, gas engines, oil engines, petrol engines, water turbines, and electric motors. The original paper will repay the perusal of those interested, especially the numerous curves and diagrams, and the table showing the "horsepower per revolution per ton of material" for the various kinds of prime movers.

Solubility of Radium Emanation in Water. M. KOFLER. (*Monatsh. Chem.*, xxxiv, 389.)—The values for the solubility of the radium emanation in distilled water at various temperatures (*i.e.*, the equilibrium ratio of the emanation concentration in the liquid phase to that in the gaseous phase) are as follows:

Temp.	Solubility	Temp.	Solubility
0.5° C.	0.526	60° C.	0.127
17.5° C.	0.283	74° C.	0.112
35.0° C.	0.185	79° C.	0.111
41.0° C.	0.161	82° C.	0.111
51.0° C.	0.138	91° C.	0.108

The temperature coefficient is of the same order of magnitude as for other gases, decreasing with increase of temperature, and above 70° C. the solubility is constant within the limits of experimental error; but no minimum is shown on the solubility curve, as is the case with helium and hydrogen, although such minima might be expected with gases generally, from theoretical considerations.