In this paper it has been shown that notwithstanding the conditions militating against the use of the ordinary equation for rate of solution, *viz.*: the variable extent of surface and the fact that the phenomenon observed is not one of solution only but also of hydrolysis, this equation describes the data at least as well as the empirical equation proposed by Mitscherlich, Kunze, Celichowski, and Merres.

The usual equation for rate of solution also describes very well the extraction of lime from a loam soil by carbonated water.

NOTES.

Red Lines for a Balance Scale.—Having occasion recently to purchase a balance, it occurred to me that, as color contrast is an aid to vision, it might be of assistance in reading the variations of the needle on a balance scale, and I therefore instructed the makers to equip the balance with an ivory scale having *red* lines, instead of the usual black ones.

This was done, and the result has justified my anticipations. The contrast between the black needle and the red lines on a white background is restful and pleasing to the eyes, and enables a close weighing with less eye-strain than with the black lines.

No extra expense was incurred in making the change from black lines to red, and I would recommend such innovation to those contemplating the purchase of a balance. C. M. CLARK.

Rack for Holding Reagents in Bulk.[1]—The bottle rack that we designed for our building to store the common stock solutions in five-gallon quantities is a framework of two-inch square material. Each row holds thirteen bottles, which are held apart, both in front and back, by uprights of the same material. For each bottle there is, therefore, a frame compartment. The bottles are kept from the wall by a three-inch board, nailed to the floor of each shelf at the rear of the rack. Along the front of each tier runs a board with a "V" shaped cut in the middle of each compartment on the sides of which the bottles rest. This prevents them from rolling. It also allows the bottles to be placed in the rack on their sides, at an angle which gives the maximum room for the solution and uses up the minimum amount of space. A glass siphon runs to the lowest portion of the bottle through a notched cork or rubber stopper, and is closed at the outer end by means of a rubber tube and a pinch clamp. Smaller bottles can thus be neatly and quickly filled without lifting the heavy, cumbersome stock bottles.

The solutions are made concentrated, according to a formula, and then

[1] Published by permission of Dr. Charles Baskerville, Director of the Chemical Laboratory, College of the City of New York.