

potass being administered in the course of twenty-four hours, the urine secreted in that time was collected and analysed. The results are shewn in this table:—

	Without medicine.	After $\frac{z}{ij}$ pot. acet.
Quantity of urine in twenty-four hours.....	f $\frac{3}{xvj}$	f $\frac{3}{xlvi}$.
Specific gravity of,	1.025	1.017
Solids in	416 grs	782 grs.
Uric acid.	2.6	3.45
Urea.....	130.5	202.40
Soluble salts	72.0	248.40
Insoluble salts	21.6	32.20
Organic matters not included in { the above	189.3	295.50
	416	782

The results of these analyses shew, that, after deducting the excess in the amount of soluble salts arising from the conversion of acetate of potash into the carbonate, the solids of the urine excreted under the influence of the chemical diuretic, exceed those recovered without its aid, by 190 grains: and we further learn, that although a large proportion of matter was metamorphosed into both uric and urea when the remedy was given, still that the greatest increase was in that mixture of organic products set down as extractive, and consisting chiefly of creatine, creatinine, uroxanthin, and matter rich in sulphur. In the example adduced, not only did the patient lose an excess of thirty ounces of water in twenty-four hours, but she *wasted* to the extent of one hundred and ninety grains more than if no remedy had been given, and to this extent had the blood been depurated of those elements which yielded easiest to the influence of alkaline salts. In these lectures I have advanced much which tends to limit the influence of the vital force, and have endeavoured to show that it is not the active agent in controlling metamorphic changes; but let me not be supposed for a moment to deny its influence.

I regard life as an active agent in controlling organization, and in exerting an influence opposed to chemical or destructive changes—in a word, as a *conservative agent*. Now, admitting the elements of our frames resist chemical influence in the ratio of their vitality, it would follow that such constituents of our fibres as present the greatest departure from health, are less highly vitalized and thus yield the easiest to the chemical force exerted by the alkaline diuretics. On this account it is fair to presume that, when we cause an alkaline carbonate to circulate through the blood, it exerts an influence on the nascent elements of those matters less highly influenced by life, allied to those produced out of the body, and actually causes the matter to assume so soluble a form as to allow of its ready excretion. This remarkable effect of the alkaline diuretics, although now for the first time demonstrated by actual experiment, and the results of their chemical influence detected in the stream by which they are washed from the body, was not overlooked by the observing physicians of other days.*

I would earnestly beg those who are now doing me the honour of listening to my remarks, to give a careful and steady trial to the *depurating or chemical diuretics*, especially the salts of potass with vegetable acids, when they are called upon to treat a chronic affection in which the exciting cause or existing disease, depends upon the presence of some product of less vitality or imperfect organi-

* In the next number of the Journal we shall refer to Mr. Simon's observations on this important subject.—Ed.