

minute crystals in and on the white part of the paper, and the ink roller may now be passed over it, when it will impart a thin surface of the fresh ink to the printed letters without soiling the intermediate white of the paper, and the copy may now be treated like a recently printed sheet.—*London Lancet, May 3.*

ON THE EQUIVALENTS OF SEVERAL SIMPLE BODIES.

By M. J. PELOUSE, M. A. S., &c.

The progress analytical chemistry has made of late renders it possible to attain a correctness unknown at the period Berzelius established the laws by which chemical compositions took place.—Thus, in carbonic acid, Professor Dumas has proved that the atomic weight of carbon was not 76.44 but 75.00; the same *avant* discovered that, the equivalents of hydrogen and calcium were 12.5 and 250. It, therefore, appeared that the hypothesis of Prout on equivalents, considered as multiples of a single body, *hydrogen*, was not without foundation and new substances,—azote, chlorine, sulphur, zinc, bromine, mercury, borium, strontium—were added. This hypothesis was generally admitted until the researches of Mr. Marignac proved that the equivalent of chloride of potassium was not a multiple of that hydrogen, and that one, if not both were exceptions to the general rule. In the following table, the author gives the results of his researches on the equivalents of various metals compared with those of Berzelius.

		Berzelius.
Sodium.....	237.17	290.90
Potassium.....	489.30	489.92
Barium.....	858.03	856.88
Strontium.....	548.65	547.29
Azote.....	175.08	177.03
Silicium.....	88.915	92.43
Phosphorus.....	400.00	392.29
Arsenic.....	937.50	940.08

Shewing that the greatest difference is between the eq. of phosphorus. If these numbers were divided by 12.5, the eq. of hydrogen, some give a very different result from that law indicated by Prout, whilst others—phosphorus, azote, arsenic—coincide with it, their eq. being multiples of that of hydrogen. Finally, it is principally the elements of organic bodies whose eq. seem always multiples of that of hydrogen.—*London Medical Times.*

TESTS FOR CREOSOTE.

The creosote of commerce is very commonly a mixture of various hydrocarbons, eupione, &c., and containing variable proportions of true creosote.

The strength and medicinal efficacy of creosote depending mainly upon its purity, it is indispensable that purchasers should be able to apply an easy and satisfactory test. Dr. Ure, in the Supplement to his "Dictionary applied to the Arts and Manufactures," proposes to test the purity of creosote by its specific gravity, a method wholly inapplicable to the purpose, and devoid of any scientific basis. The following test may be relied on:—Place a drop upon the skin of the hand, allow it to remain for about one minute, and then wash it off with water; if the creosote is pure, it will act as a powerful escharotic, producing a white spot, which will shortly become red, with a pungent sense of burning. The intensity of its caustic effects, indeed, stands in direct ratio to its purity; many commercial specimens will be found to exert very little, or none. Moreover, pure creosote is perfectly soluble in caustic potass.—*Lancet, May 11.*

THE PREPARATION OF PROTO-LACTATE OF IRON.

Take two pounds of sour milk, one ounce of sugar of milk, and one ounce of iron filings; mix, and allow the mixture to stand for several days at a temperature of from 86° to 104° Fahrenheit, taking care to stir it frequently. As soon as the sugar of milk is dissolved add another ounce; and when a sufficient quantity of proto-lactate of iron has been produced, which is seen by the deposition of a white crystalline powder, the mixture is boiled, and filtered boiling hot into a vessel which admits of being closely stoppered. On cooling the salt is deposited in crystalline crusts. The separation, however, is completed only after the lapse of several days. The fluid is then decanted, the crusts broken and washed

repeatedly with cold water, and the salt dried upon bibulous paper at a moderate heat, as quickly as possible. Lactate of zinc may be prepared in the same manner.—Prof. Wohler, *Annal. der. Chemie.*

CERATE MADE WITH STEARINE.

In the last number of the *Journal de Chemie Médicale*, M. Barbin, druggist at Angers, gives the following formula for preparing cerate, in which stearine may be advantageously substituted for wax.

R. Stearine,	180 grammes.
Rose water,	375 "
Oil of almonds,	500 "

M. S. A.

It will be observed that the white wax is replaced by stearic acid, and in an excess of sixty grammes over that prescribed in the codex.

This process has the advantage of yielding a perfectly white and homogeneous cerate: it has the unctuousness of *cold cream*; and an hour suffices for its preparation. It costs less than that of the codex, and is equally efficacious. It might be substituted in hospitals where yellow wax is used, as the price of the latter substance is more than that of stearine.—*Encyclographie Médicale*, Jan. 1845.

PREPARATION OF IODIDE AND BROMIDE OF SILVER.

These salts may be quickly prepared, by precipitating in the dark, a solution of fused lunar caustic, with iodide or bromide of potash or soda, receiving the precipitate on filtering paper, washing it repeatedly with distilled water, and finally drying it on white filtering paper, spread over a chalk or porphyry flag. Thus procured, these salts are of a yellowish colour, and in appearance floccy. Diffused or direct sunlight, exerts over these salts a decomposing power, reducing them to the state of black oxide.—*Buchner's Repertorium.*

MIDWIFERY.

ON THE EMPLOYMENT OF PESSARIES.

Before describing the various kinds of pessaries, it may be well to dispose of the objections urged against these instruments, by Dr. Hamilton and other writers. It is affirmed, that pessaries can only act as palliatives; that they cause irritation and leucorrhœa; that they make injurious pressure on the contents of the pelvis; that if not frequently removed, they become encrusted with a calcareous matter, which may lead to ulceration even into the rectum, putrid discharges, and fungous and malignant growths; that patients, while wearing them, have suffered from irritation of the bladder and protracted constipation; and that cases from time to time occur, where, from the laceration of the perineum, no ordinary pessary can be retained; and, lastly, that they subject the patient to the charge of the medical attendant for life.

It is not true, that pessaries never act but as palliatives. I have known many instances of their employment for several months, no other treatment having been resorted to, where a perfect cure has been obtained; so perfect, indeed, that on removing the pessary, the descent has not again taken place. But if this objection were allowed, it would detract but little from its value, as the recumbent posture, astringent injections, tonics and cold, are far more efficacious with, than without the pessary. Irritation and leucorrhœa may be produced; and I know there are patients, who, on these accounts, cannot wear it; but how few are these compared to the number where such evils subsided in a few days, if the pessary has been accurately selected as to size. I have often, indeed heard the remark, that so far from there being annoyance, there has scarcely been any consciousness of the presence of the artificial support. That ulceration into the rectum, although probably not more than one such instance ever occurred, may have been occasioned by too large a pessary, or by its incrustation, cannot be denied. But how easily might such evils have been prevented! Surely if these dangerous consequences are not inevitable, they cannot be adduced against the judicious employment of the remedy. On one occasion at Guy's,