[1847], Feb. 24

Feb 24. I find I shall not have time to finish this and write also to Wm & to Torrey both, so I will devote this page to Wm you can read it and then send it to him. Best love to all at home.

Dear William.

Since I last wrote you Liebig has been making some important discoveries in Animal Chemistry. He has rediscovered the Creatin of Chevreul which no one else has been able to prepare. It exists though in small quantity in the juice of [illegible] of every [illegible] may be very easily prepared from the same. It is not a base but becomes so by losing 2 atoms of water and is then (Creatinin). It contains Nitrogen in large quantity. I cannot at this instant [illegible] but his paper on the subject will soon be published. He has likewise discovered in the mother liquor from which [illegible] a new nitrogenous acid which is not yet named. The acid in muscular substance & flesh is lactic acid as long ago stated by Berzelius. This is for the first time proved by analysis and is an important point. There is a great deal of work good bad and indifferent performed in Liebig's laboratory. Animal chemistry is the order of the day here chiefly I suppose because the new edition of Liebig's is to work on that subject is to appear next summer. The 1st part is already out. There is much [illegible] suppose that Mulders Proteine cannot be obtained free from Sulphur and this must if confirmed make a material alteration in our views of animal physiology. Whitney and I have worked together on the bile but must give the subject up for want of material. Liebig's view that the bile is essentially a compound of soda with an organic acid is probably correct. At least the whole of the bile may be transformed into a mass of snow-white crystalline needles. The acid in question (bilic acid) contains Carbon hydrogen Nitrogen Sulphur & Oxygen. We found in sheeps bile 5,4 percent of sulphur. Ox bile contains 3 per cent. Swine's on the other hand none. The quantity of sulphur in Albumin Fibrin & Casein has been found much greater than was formerly suspected - it is equal to 1,5 per cent. About the real existence of phosphorus as such in these substances there is much uncertainty at present - I will attend to your wishes about the balance & porcelain as soon as possible, but as I am now so far from Berlin this may take some time. George will tell you when the things arrive. & I shall in all probability be with you again in September next, having accepted an appointment in New York - I shall order some things in Berlin for myself and Dr Torrey and yours will be sent at the same time. Your platina I will

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