

good results. It was utterly impossible for any one to have performed the duties of the law in the time, and with the *means* allotted for them. I, therefore, carried out in this, the spirit and not the letter of the law. The mere letter of the law carried out, howsoever faithfully, would have been a mere shadow without a substance, and would have subjected any one to merited ridicule and contempt, who, under any circumstances, might have professed to have done it.

Another, and a great defect in the present law, is requiring the State Chemist to fit up his Laboratory in the different counties, and there make the analyses, instead of allowing him to fix it permanently in one place. Though it is *possible*, to carry the necessary apparatus through the country, and make the analyses, yet it is at the sacrifice of much time, which could be more profitably spent in other duties, and requires much fruitless labor, which should be avoided. The rooms in which I had to place my apparatus, were such as I could procure, and *always* unfit for that purpose. Great injury, even with the utmost care, has sometimes happened to the materials, and considerable damage was frequently done to the more delicate and costly parts of the apparatus. Without the most delicate and accurate balances, no analyses can be performed, for upon their truth and correctness hang the whole value of an analysis. They should, therefore, be preserved from every thing likely to impair their accuracy. Faraday, the first authority on this subject, and, indeed, on every other connected with chemical manipulation, says, without the most delicate balances, no analyses can be made, and all who are in the habit making analyses as delicate as those which I have to perform, keep their balances *out of* the room where the analyses are made, though this room (that for analysis,) has all the means and appliances to carry off all vapors which may corrode or injure the balances. It is especially enjoined never to touch them, except for the purposes of weighing, when their case should be immediately closed, and that when once they are fixed, that they should not be moved. It can be readily perceived, now, what difficulty I endured to keep mine correct, and the time which I had to spend to preserve them from harm, and the derangement which they must have suffered in their frequent removals from place to place.

The law also, in its 5th section, makes it a duty to publish notices of lectures, but makes no appropriation for defraying the cost. I do not know whether the Legislature intended that the State Chemist should pay for it himself. I have always given full notice in all of the county papers, where I have been, both of my presence in the counties, and of the time and place of giving my lectures, and paid for the publication from my own funds. Nor is any provision made for defraying the expense of removing my laboratory, or for the rent of rooms for it.

There is, moreover, this general defect in the law, viz: *that it requires an amount of duty to be performed, in a given time,*