

# Editorial Notes.

## PHARMACEUTICAL EDUCATION IN SOUTH AUSTRALIA.

"One who has been through it all" writes in this issue opposing the policy of the Pharmacy Board of South Australia as regards education. He does not say what he means by the "it" in the title he assumes, but he does define his position by saying that "if the boys are well up in the 'Pharmacopœia,' Squire's, Materia Medica, and Attfield, and know them well, it is simply all they require." Our correspondent must not feel hurt if we remind him that this sort of argument has always been used against improvements in education. "Reading, Writing, and 'rithmetic were good enough for me, and my father, and I do not see why my boy should know anything more; do not see how it will do him any good!" Possibly the rising generation have not heard this argument, and can hardly believe that it was ever used. But their fathers know all about it, and know how difficult it was to meet and combat the position thus taken up.

But what is meant by "knowing" the "Pharmacopœia," Squire's, Materia Medica, and Attfield, and "knowing them well?" Surely it is not sufficient to be able to answer questions as to the facts and theories mentioned in these books. Someone must have accumulated the details and arranged them in proper order. How was it done? To know a thing well is not merely to know all that is now being said about it, but to understand at least the methods by which the present state of knowledge has been reached.

The "Pharmacopœia" is a striking illustration of this. The compilers themselves do not think they have said the last word. Take even the shortest so-called "monograph." We open the book at Coriander Fruit, "the dried ripe fruit of *Coriandrum sativum*, Linn." What does the word *Linn.* mean? Surely, if the book is to be known thoroughly that must be understood, otherwise the *Coriandrum sativum* means practically nothing. Then, what is *Coriandri Fructus*? A man might know perfectly well the definition—the dried ripe

fruit of *Coriandrum sativum*—and yet not have the least idea of what the plant is. No doubt our correspondent would say that he must learn his *Materia Medica*, and that will tell him it is a plant belonging to the natural order *Umbelliferae*. But this order contains many hundreds of different species, and unless the learner becomes able to distinguish this particular species from others, he certainly cannot be said to "know" the "Pharmacopœia." Then, again, comes the question of species. What is a species? This involves all sorts of questions of botanical philosophy, the evolutionary theory and the long discussion running over the past century at least, and not yet ended. Next in the paragraph comes a reference to *Benth. and Trim. Med. Pl.* What does this mean? Has the book been seen? Who were Bentley and Trimen, and why should their books be selected for the purpose? Then comes a description of the characters of the fruit. To "know" this section of the monograph demands a fairly wide acquaintance with botany, or the words are absolutely meaningless.

It is quite certain that in a book so condensed as the "Pharmacopœia" not a word is inserted that is not of importance, and yet our correspondent seems to think that Botany, the only means of acquiring any knowledge of the phrases used in a very large proportion of the book, is quite unnecessary.

Following up this particular article of the *Materia Medica*, we turn to "Oil of coriander—the oil distilled from coriander fruit." Here the characters and tests are given in brief references, which need more than a passing knowledge of chemistry to interpret them, and this is still more the case in monographs on other essential oils.

We should be quite prepared to accept our correspondent's definition of what is necessary for a boy to learn, and from that alone undertake to show that nothing that has been included by the Pharmacy Board of South Australia in the course of study is outside this particular definition.

There is too widely spread an idea at the present day that all that is necessary to enable a man to get on in life is to learn as little as he can, and do as little as he may. That is not the way by which those men who have done well have secured their positions, and we are sorry to hear any word said that will lead a young pharmacist to think that his interests, or even his own happiness in the pursuit of his calling, is best served by learning as little as can be.

## THE EDUCATION OF PHARMACISTS IN NEW SOUTH WALES AT THE SYDNEY UNIVERSITY.

The general approval of the pharmacists of New South Wales has been given to the step taken by the Pharmacy Board of New South Wales in requiring apprentices to pharmacists to attend at the Sydney University for the purpose of hearing the lectures in Botany, Chemistry, Practical Chemistry, and *Materia Medica*, and pass the University examinations in these subjects. But there are still continual inquiries regarding such lectures, showing that many pharmacists have not made themselves acquainted with the regulations. We remind them that the law compels the master to give his apprentice time during the last year of the apprenticeship to attend the University. Complaints have been made that the master will not grant the time, and it is wise to point out that such refusal will bring the master into serious trouble. Sec. 12 of the Pharmacy Act makes it imperative that time be granted, and the master breaks the provisions of the Pharmacy Act if he does not grant the required time, and is liable to be fined under the Act, while he also makes himself liable to damages for a breach of the indentures or articles of apprenticeship.

Complaints are further made that the master does not give his apprentice time for study. There is just now a case where the master compels his apprentice to be at the shop at 7.30, and to attend the shop one day up to 6 p.m., and the alternate day up to 11 p.m. During this time the apprentice is expected to go to the University, and attend the lectures, and return to the shop as soon as the lectures are over. The lectures at the University in the first term take all morning from 9 to 1, and the master's obligation, to teach his apprentice the art and mystery of pharmacy, surely demands an allowance of time, not only for the bare attendance at the lectures, but also for study, to enable the subjects of the lectures to be grasped.

There is a solution of the difficulty, if the master should think it hard on him to let his apprentices have the time which the law and common justice demands, namely, to take no apprentices for less than four years. The Act provides that an apprentice must serve not less than three years, but no proviso of the Act prevents the master taking apprentices for four years. The Act further states that during the last year of the apprenticeship time must be given to the apprentice for the lectures, &c. The law does not say that it must necessarily be during the third year. As long as time is given during the last year the terms of the Pharmacy Act will be complied with.

Besides that, it stands to reason that the third year is the most important one for the master as well as for the apprentice. During that year the apprentice is most useful to the master, and the experience then gained is of the utmost importance to the apprentice.

There is no doubt that masters who obstruct their apprentices in their lawful desire to go to the University, and to study for the purpose of becoming fit pharmacists, will very soon become known, and will be shunned by apprentices and their parents, particularly as there is no superabundance of apprentices. It should, therefore, be in the direct interest of the master to help and assist their apprentices, and not to hinder them.

training the teachers, and about a fifth of that sum to the outlay on inspection and management. It is disappointing, after having been led to expect that the families at request left by Sir Thomas Elder would be instrumental in providing tuition for the teachers at the University, to find that the expenses of training have been increased sixfold, without reckoning anything for what the University contributes. Indeed, in considering the financial position of the Education Department, there is reason for questioning whether the ambitious effort to offer to every teacher a university training has not led the state too suddenly into an additional expenditure not at first contemplated. The number of teachers beneficially affected by the new scheme, too, is comparatively small.

The cost per child under instruction during 1900 still compares favourably with that in the other states of the Commonwealth; it was £2 6s. 6<sup>1</sup>/<sub>2</sub>d., an advance of 1s. 8<sup>1</sup>/<sub>2</sub>d. on the figures for the previous year. In Victoria, where the method of reckoning the average amount expended for the pupils instructed is different from that adopted here, the cost calculated at "per child in average attendance" is nearly the same as in South Australia, the latter being £3 7s. 4<sup>1</sup>/<sub>2</sub>d. for the year. Many well-founded complaints have been made in the eastern state that some of the economies by which the average was brought down from the sum of £4 13s. per child in 1900 were effected by the unwise plan of resorting largely to boy-and-girl labour, and compelling very young teachers to take large classes. The same tendency is shown here, and in "The Register" last December this matter was commented upon as representing distinctly a backward movement. The number of young teachers not permitted to take the status of even "pupil teacher" is disproportionately increasing. The report for 1900 has an item, in the enumeration of the teaching staff, "acting pupil teachers, 22;" and the list of monitors has swollen from 178 to 196. Young people should enjoy full opportunities to qualify for the important vocation of teaching, and we have no sympathy with that form of selfishness which induces the mature worker to exclude his juniors lest the latter should introduce inconvenient competition; but the Education Department seems to be going too far in the opposite direction. The pupil teachers have decreased from 164 to 63, and their places are mostly taken by monitors and other juniors employed at 4s. weekly for boys and 3s. 3d. for girls.

The average daily attendance at public and provisional schools during 1900 was 43,104, an addition of 876. There were at the end of the year 11 more provisional schools than at its beginning, but one public school less, the respective numbers being 407 and 281. At the annual examinations the percentages gained by public and provisional schools respectively were approximately 82 and 80. There was a slight improvement in the former, but a small decrease in the latter. The first and second quarters' attendances last year, especially in the country districts, were not very satisfactory; and one reason for this was the prevalence of whooping cough and other ailments. The marked interference so often caused by epidemic maladies, over which the teachers have no control, is an additional reason besides those already advanced in "The Register" for the abolition of the hard and fast examination system. It is satisfactory now to be assured that that system is to give place to a method of school inspection more in accord with advanced educational ideas in England and elsewhere. The new plan is to help the teachers and to inspect their modes of imparting instruction rather than to attempt to gauge accurately the character of the class work from the answers given by the individual children to a series of annual questions. The general body of the teachers will work all the better if they feel that they are trusted, while the inspectors under the new system will have more time and opportunity for the always delicate and difficult task of bringing to reason the few who are inclined to shirk their duties.

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### THE EDUCATION REPORT.

The cost of the educational system is steadily increasing. It is only natural that as the population of juveniles grows there should be a corresponding augmentation of the expense of educating them, but the annual report of the Minister of Education, which was laid before Parliament yesterday, shows that the expenditure on primary instruction during 1900 was £145,253. This is a considerable advance upon £130,682, the amount for 1899; and an item of £1,470 for secondary education also shows a distinct increment. The main responsibility for the additions to the educational bill of the state is due to the provisions for primary education and the training of teachers, which have absorbed more than 15,000 beyond what they did in 1899. The actual teaching is paid for at no higher rate—in fact, there is a proportionate reduction in the bare cost of instructing each child; but more than 15,000 have been added to the expenses of

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