

Pharmacy Act (name a few of such poisons)?

8 to 10. Oral Examination.

Values. 15, 13, 8, 10, 10, 7, 30.

DISPENSING.

Examiner: W. MURKINSON.

(Time allowed, three hours.)

R. Kay.

R Quininae sulph.
Zinci oxid a gr. i.
Ft. pil. mitte tales No. viij.
Cap. unam bis indie, hora decima et hora secunda.

Lena Rivers.

R Camphorae ʒi.
Liq. ammon. fort. ʒij.
Ol. olive. ʒi.
Aque. ad. ʒij.
Ft. Lin. Fricetur pars affecta ter quaterve indies.

Rupert King.

R Emuls. ol. morrhuae ʒoʒo. ʒiv.
Cap. cochl. ampl. mane, merulae et hora somni.

Edna Lyle.

R Camphorae ʒss.
Hydrarg. ammon. ʒss.
P. acidi tannici ʒss.
Vasellini. ad ʒi.
Ft. ung. Modo dicto utend.

R. Chambers.

R Emp. canthar 3 x 5 in.
Inter scapulas applicand.

Values. 15, 20, 25, 20, 20.

*The Five Senses in Pharmacy.

By WM. MARTINDALE, F. L. S., F. C. S.

You come to this School, gentlemen, and associate yourselves together for discussion, mutual improvement and help, and to cultivate and train your minds on certain lines by applying your reasoning powers and memory to the study of chemistry and botany and the allied subjects, materia medica, and pharmacy, which are founded on them. You will be aided in this by your senses of touch, sight, taste, smell, and hearing, which, I trust, have been trained by your earlier education, as in all our elementary schools there are now better opportunities than was formerly the case. I will refer to these senses *seriatim*.

(1) That of *touch* first. The early training of this by modelling and other exercises tends to induce neatness and expertness in work, the use of the fingers, manipulation, and the handling of things in general, but particularly glass vessels and apparatus; the absence of this training employers often know to their sorrow,

hence the necessity and advantage of apprenticeship, which is a period of training more especially of the sense of touch.

(2) Next the sense of *sight*. You have to cultivate your powers of observation. I have not the extract pot to which Professor McLeod referred to when addressing you, where he said a lecturer dipped one finger in the pot and licked another finger, then passing the jar round told the students to do the same and cultivate their powers of observation. This, unfortunately, they had not done, but failing to observe his action, with wry faces licked their fingers coated with the extract. The sense of sight is best trained in early life by lessons in drawing; the power of committing to paper what you see, it is said, enables you to see twice as much, and this with minute observation and little effort, which, if carefully trained, can be easily sustained. Botanical study, especially field botany, develops this power of observation. The trained botanist readily detects the smallest plant new to him. To illustrate my point, I was once walking with a young farmer along a lane where I was told a certain small fern grew, and asked him to search one hedge while I did the other. After walking fifty yards he gave up the search, saying he was "not going to spoil his eyesight looking for brackens."

(3) *Smell*.—It is generally considered that the olfactory nerve, by which this sense is conveyed to the brain of the pharmacist, is blunted by its constant use. You have heard the riddle, "What smells most in the chemist's shop?" Although not of such importance to the pharmacist as the senses I have mentioned, it is generally about the first we apply in our diagnosis of a drug or chemical; still, we are least able to define it and that only by comparison.

(4) *Taste* also is used as a test. The employment of this sense requires caution, and the exercise of it before our clients in the pharmacy is to be avoided; still, it is a character of great service in diagnosis. We can vary it by the terms "bitter," "sweet," "pungent," "acid," "aromatic," etc. This sense is, however, mostly appreciated, and by the connoisseur cultivated, in the pleasures of the table.

(5) Lastly *hearing*. We probably can all enjoy the sweet solace of music, but for its full enjoyment this sense requires cultivation; unfortunately, we are much distracted by the discordant noises which

fall upon our ears in London, and our weary brains are irritated to such an extent that concentration of thought is well nigh impossible. Of late years much has been done to lessen the noises of the street by wooden pavement and india-rubber tired wheels, but there is still room for improvement in this direction. Why are we content to be pestered with German bands, barrel organs, and street cries of various kinds, which are quite unnecessary?

I have touched upon the cultivation of your senses, your reasoning powers, and your memory. Another of your faculties is imagination. Perhaps you may think that the pleasures of a cultivated imagination do not come within our scope, but applied to chemistry, pharmacy, and even to business, this helps to develop our ideas, and take away the reproach that an individual "could not see beyond the end of his nose." It enables us to devise and to conceive what may take place under certain conditions, which we can prove by experiment, and thus by induction and deduction, store our minds with facts.

Your Association gives you the opportunity of meeting to discuss problems which are of interest to you as students, but which would not at first interest outsiders, yet I am glad to know that your work has not been unobserved; the germ of original work requires a beginning, and may often be incubated at the suggestion of another. Your professors inspire you with enthusiasm, zeal, courage and hope by personal contact. In your discussions, you are developing your reasoning powers and preparing for your work in life.

But, you will ask, after all your training and your examinations passed, what is there at the end of it? From the complaints one hears, the times would seem to be against us. It is proverbial that the apothecary's calling is but a poor one, but the man who has knowledge has power, and the ever increasing field of work and remuneration for the pharmacist and chemist, even within his legitimate calling, will absorb his time, and happy is the man who can find a hobby in the scientific side of his daily occupation. — *Pharmaceutical Journal (Eng.)*.

METHOD FOR INSECT BITES.—Immediate relief from the unpleasantness of insect bites is claimed for the application of methyl ether in the shape of the ordinary cone or in solution with sulphuric ether.

*From an Address to the School of Pharmacy Students' Association delivered Thursday, December 9, 1897.