

on all fours with the present one was referred to, viz., *State vs. Norton*, 67 Iowa Reports 641. In that case the defendant kept a drug store, and liquor, alleged to have been kept with the intention of selling the same in violation of the law, was kept in the drug store or in a room connected therewith.

The defendant claimed that the liquor was kept for the purpose of medicine, and that whatever had been sold had been sold for such purposes, and, while the defendant was proprietor of the store and stock, he did not claim to be a registered pharmacist; he offered to show that his prescription clerk was, and that all sales were made by the clerk. The court refused to receive the evidence, when the defendant appealed to set aside the conviction on the grounds of rejection of evidence, but the judges of the Court of Appeal, in giving judgment, said: "There is no doubt that a person may lawfully become the proprietor of a stock of drugs without being a registered pharmacist, but being such proprietor is quite a different thing from conducting a drug store. A room or building in which the business of selling drugs is conducted is a drug store, and the conductor of the store, within the meaning of the statute, is the person who has the ultimate right to control the business in respect to its continuance or discontinuance, the employment of clerks, the fixing of prices, etc. It matters not with what powers the clerk may be clothed, he cannot be said to be the conductor of a store while the powers are merely derivative. In our opinion the design of the statute was to prohibit persons not registered as pharmacists from engaging in the responsible business of buying and selling drugs as dealers.

The court then held that the defendant was properly convicted. This case also disposed of any argument of Robert Simpson's solicitors that the small space set apart in said departmental store could not be said to be a shop within the meaning of the Act.

The members of the Council of the College deserve the thanks of the druggists of this province for bringing this case before the Superior Court and setting aside the judgment of the Toronto police magistrate. It is the first case of the kind in the Dominion of Canada. It thoroughly establishes what keeping *open shop* means, and who are the proper persons to engage in the business of druggist.

The Microscope in Pharmacy.

A good microscope is almost indispensable to the physician and the pharmacist. The time when the microscope was viewed merely as a scientific toy wherewith to view the millions of animalcules in a drop of stagnant water, or the minute in nature, is long since past. While it is true that many persons of means and leisure are daily using the microscope to gratify their desire (or curi-

osity, if you will) to investigate the minute in nature, and thus increase, in no inconsiderable manner, the new funds of scientific information, it is also true that to the physician in the diagnosis of disease, to the pharmacist wishing to detect adulterations, and to the chemist in his work it has been indispensable. It is now regarded as indispensable in many lines of business where years ago its use was not even thought of.

Since the discovery of the bacillus of tuberculosis by Koch, the microscope has been more and more depended on in the detection of tuberculosis. The physician feeling doubtful in regard to whether the trouble is tubercular or not can, by means of the microscope, settle the question with precision in most cases, the presence of bacilli tuberculosis in the matter or tissue establishing beyond question the fact that the disease is tuberculosis. Again, the microscope is being largely used in the diagnosis of tumors and morbid growths as to their malignancy. It is also indispensable in the examination of urinary sediment. To the analyst it is indispensable, oftentimes the microscopical examination of water being more valuable than the chemical analysis. Without the modern microscope the whole science of bacteriology would of necessity not exist, and such investigation would be impossible.

To the pharmacist, it seems to the writer, more than any other, microscopy offers an inviting field; and, more than that, it may be made a source of profit. The physician often has little time, and sometimes less inclination, to pursue this line of investigation, and often the work is not done because there is no one to do it. It seems that if the pharmacist would fit himself to do this work it would be appreciated by the physician, and would lead, in many instances, to a better understanding between them.

It is argued that in order to prepare to do this work one requires a considerable sum of money. This is true, but it is also true that such outlay would not be all made at one time. First, a suitable stand (one that would take the modern accessories) should be purchased, and then add accessories from time to time as they may be needed, and as the student may feel that he can spare the money. It is a mistake to buy a cheap instrument to learn with, for such instruments will soon be found insufficient, and the owner is often deterred from purchasing a more suitable instrument because of his inability to dispose of the old one. This is too often the case.

A good stand, and that will take all the modern accessories, should be purchased at the outset. It should have both a fine and coarse adjustment. A stand having no fine adjustment may be proper for some purposes, but for the finer work it is not. Either a Universal or Investigator stand will meet every requirement. These are listed by the manufacturers with one eye-piece at \$55 and \$45 respectively. A 1-inch eye-piece will be

found best where only one is purchased; if more are purchased a $1\frac{1}{2}$ -inch and a $\frac{3}{4}$ -inch will be very handy. At first a $\frac{3}{8}$ -inch and a $\frac{1}{2}$ -inch objective will be found sufficient. In purchasing a $\frac{1}{2}$ -inch objective, see that its aperture is at least 0.84 N.A.; or, better, 0.92 N.A. As the student becomes more adept in working with the microscope, and wishes to branch out into bacteriology, an oil immersion objective of $\frac{1}{6}$ or $\frac{1}{8}$ inch will be found almost indispensable. These will be found to answer every purpose nicely, but often other objectives will be found very convenient. The writer has a $\frac{1}{6}$ -inch objective of 0.58 N.A., which he would be loath to part with, it being the handiest objective in certain work he has ever seen. It is excellent in examining urinary sediment, and with it casts can be detected, although the latter are more satisfactorily viewed with a $\frac{1}{2}$ or $\frac{1}{4}$ -inch objective. A good $\frac{1}{2}$ or $\frac{1}{4}$ -inch objective will show bacilli tuberculosis nicely; still, for this class of work an oil-immersion objective is to be preferred.

In using an objective of high power a condenser will be found invaluable; indeed, it is claimed by many competent observers that without a condenser the full capacity of the objective (high power) cannot be shown. Thus one might go on and enumerate what every person will find out for himself when he purchases a satisfactory stand.

As remarked above, the pharmacist is in a position to do this work. A knowledge of microscopy is not to be gained by studying a few books and looking into the microscope a few times, but is only to be gained by such intelligent familiarity with the appearance of objects under the microscope as will enable the observer to judge of what he sees. In other words, it is not so much a question of how to see, but what is seen, and this comes only from practice.

In order to work intelligently with the microscope itself, its adjustments, etc., also to prepare properly material for examination, the student will find it necessary to study closely the standard works relating to the instrument. For a descriptive and explanatory work on the microscope itself, Stoke's "Microscopical Praxis" is the best work the writer is familiar with, price considered. Gage's "Microscopical Manipulations" is an excellent work, and so is Clark's "Practical Microscopy." Wet herell's "Medical Microscopy" is a standard work dealing particularly with the subject from the physician's standpoint; but it is not as complete as Jaksch's "Clinical Diagnosis," which deals very freely with the subject.

With these books at hand the student is in position to enter systematically into the study of microscopy. The writer believes that nothing is so conducive to skill in manipulation as practising on a few slides of diatoms. These can be purchased, and, if carefully selected, will prove very valuable to the student in his work.—*Western Druggist*.