

Let us not encourage consumer opposition and wholesale revolution against retail groups organizing to enforce fair-trade legislation. If the manufacturer does it or if the wholesaler does it, the consumer cannot point his finger and say, "The druggists got together. They had the bill passed in the legislature and are now trying to enforce higher prices on trade-marked commodities." Let them rather say, "The manufacturer is trying to uphold his good name, his reputation and the trade-mark which is so significant of the origin of his product, of the quality of his product and guarantee of the continuity of that same quality and nature of the product." That is the substance of the act that is the substance of the decision, and the enforcement should be pivoted around the wording of the act and the spirit and language of the decision; otherwise, we may be treading on unsafe grounds. If any action is to be taken by a retailer, it must be by an independent retailer, whose business is being crushed by unfair methods of competition, but not by an association of retailers.

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#### MOTIVATING THE COURSE IN MATERIA MEDICA.\*

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The writer, who has been teaching *Materia Medica* and Toxicology for the past ten years, passes on the following material for what it is worth to those who may find something of value in this method as securing motivation for one of the major subjects in the pharmaceutical curriculum; namely, *Materia Medica*.

The student who begins a new course, has a right to know why it is placed in his program; and the novel method here proposed attempts to point out one way in which the student, by his own findings, can answer the question. This system has been employed by the writer in his recitation classes for the past seven years with apparent success. The difficulty of determining to what extent such a method is successful, is obvious to the experienced teacher of the subject.

It might be pointed out at the outset that this method is applicable to other fields or subjects than those herein mentioned; the method of attack being the important point of consideration for this article.

The first week that the class meets in the recitation, a discussion of the purpose of studying *Materia Medica* is initiated. There follows more or less of a "free for all" debate, and no particularly definite conclusion is reached, since where liberal discussion is permitted (as it should be) there are often as many "pros" as "cons;" and this is exactly the basis of the psychology which enables the writer to carry out his experiment, or rather to create the desire in the students to test out their several contentions.

Sometimes it takes the first two recitations to convince the class that experimentation is necessary (the term "experimentation" applying to a testing out of one's convictions to see whether they be true or false).

At the opportune time (this varying with each class as has been indicated) the following table is given to the class as an assignment to be brought in the following week:

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\* Presented before the Section on Education and Legislation, New York meeting, 1937.

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Name.....	Date.....	Hours.....	Store	Location.....
Customer Number.	Pharmacy.	Chemistry.	Materia Medica.	Remarks.

The details of carrying out the assignment are as follows: "Take a long sheet of paper and copy the above table upon it. Take it to the store in which you work, and in case you are not regularly employed obtain permission to remain in some store for one evening or one day. If you are employed, let the data be gathered for one whole day, or if you work in the evenings for one whole evening."

The following details explain the columns listed in the table. The one listed Customer Number should represent the number of consecutive unselected customers as they come in to purchase something at the drug counter such as drugs, prescriptions, sundries, etc. Sales at other counters such as cigars, cigarettes, cosmetics and soda fountain (except such as require a knowledge of some phase of pharmacy such as preparing a castor oil "cocktail" at the fountain) should not be recorded in this study. Were this a special study of commercial pharmacy *all* of the transactions that occur within the store might have been included.

The column listed Pharmacy, represents any operation or transaction which requires a knowledge of prescriptions, their writing, interpretation or manufacture; the manufacture of preparations outside of prescriptions themselves; and commercial pharmacy, such as knowledge of costs, correct selling price, etc. Obviously, there is seldom a case where commercial pharmacy does not enter into the picture. However, there are some exceptions to this statement, namely, the rendering of "first aid" to the injured, giving advice as to dosage of some medicine that had been dispensed at some previous occasion, or answering some general question that does not involve the passing of currency.

The column listed Chemistry, represents any operation or merely theoretical knowledge of chemical processes or reactions involved in prescription manufacture or other pharmaceutical operations, an understanding of the chemical properties and solubilities, as well as a knowledge of chemical incompatibilities.

Under the heading of Materia Medica, such things as checking of dosage on the prescription, watching therapeutic incompatibility, general questions on the part of the customer regarding "how to take" the medicament or how to apply same; and anything related to a knowledge of Toxicology is included.

The last column, reserved for Remarks, is for the purpose of having the student make any special notes to substantiate his memory in case some point comes up in the future class discussion regarding the details of a certain transaction or sale; or in case a special situation presented itself.

A few random samplings of some of the assignments that were handed in by the students will serve to clarify the method that students employed in obtaining their records:

Name: (Student A. W.) Date: Sept. 1932. Hours: 8-12 P.M. Loc.: N. Y. C.

Customer #.	Pharmacy.	Chemistry.	Materia Medica.	Remarks.
1	/		/	Lady wanted to get cough syrup to bring up phlegm.
2	/		/	Sold fountain syringe; lady wanted instructions.
3	/		/	R̄ calling for Tr. Opium. Large dose; called up physician who changed it to Tr. Opii Camphorata.
4		/		R̄ for $\text{KmnO}_4$ and glycerine. Dangerous to triturate hard.
5			/	Man bought 4 oz. Elixir I. Q. S., wanted to know use.
15			/	Lady wanted something for rough hands. They get sore after washing.

Name: (Student A. C.) Date: October 5, 1933. Hours: Full Day. Loc.: N. Y. C.

3			/	R̄ as to dose.
9			/	Rhubarb and Soda, asked dose.
11	/			Made Boric Acid Ointment.
14			/	How to use calomel tablets.
16			/	How to use Spirit of Nitre.
19			/	Fever thermometer, how to use it.
21			/	10% Argylol, how to use it.

Name: (Student S. C.) Date: October 1, 1933. Hours: 8-12 P.M. Loc.: N. Y. C.

10			/	Mineral oil, dose asked.
11		/		Saturated solution of potassium iodide.
13	/			R̄ eye salve.
25			/	Nasal atomizer, use demonstrated.

Name: (Student P. J. A.) Date: October 5, 1933. Hours: Full Day. Loc.: N. Y. C.

2	/	/		How to mix $\text{CuSO}_4$ and Lime as insecticide?
5	/		/	How much Senna and manna must be given as a laxative?
7	/	/	/	How much aspirin can be taken without injury?
11			/	Is overdose of Bromo Seltzer bad for heart?
22			/	Is dried raspberry good to cure colds?
31			/	How much lysol can be used for antiseptic?

Name: (Student M. R.) Date: October 5, 1933. Hours: Full Day. Loc.: N. Y. C.

(NOTE: This was a hospital pharmacy.)

6	/		/	Dose digitalis tablets.
13	/	/	/	Fowler's Soln., the cautioned dose.
14			/	Use of witch-hazel asked.
21	/	/	/	Con. sulfuric—poison and asked use.
33	/	/	/	R̄ acid and alkali incompatible.
39	/	/		R̄ soln. ammon. acetate.
46	/		/	Thermometer, how read.
48	/		/	Basham's mixture, dose and use asked.

In the above tables, customer numbers omitted in this report purchased items such as toothpaste, milk of magnesia, epsom salts, etc., without any questions being asked. To save space, these items have been deleted from the student's report by the writer.

For those students regularly employed, this assignment does not entail much difficulty, except in a very busy store. It has been found that this problem may be solved by asking the "boss" to cooperate in the survey (which many of them did with much enthusiasm and interest). For those not working, other students in the class arranged to invite such individuals to their store to make the survey. In any case the student who never worked in a drug store as yet, was asked to seek the cooperation of the neighborhood pharmacist who, in most cases, was ready to allow an evening's study to the pupil. It might be pointed out, incidentally, that in a few instances students received employment as a result of this assignment.

It will be noted that the frequency with which the checks occur under the Pharmacy column refers to the price, though at times it undoubtedly occurs because of a strict knowledge of some pharmaceutical operation. The checking of one, two or all three columns varies with the nature of the items sold. It is this feature which adds interest to the study for the student.

Since this is actually a rough survey of the nature of drug store sales, and since these transactions vary with the neighborhood, time of day, the season and even the weather, the careful observer will immediately see that the results cannot be strictly interpreted. Furthermore, the variations due to the student's viewpoint as to what belongs under each of the columns in the above table, adds inaccuracies; but since this is not a quantitative study and chiefly qualitative in its aspects, the accuracy is not at all essential. The primary object of such a study is to point out that *Materia Medica* and related theoretical subjects, as taught as part of the present-day pharmaceutical curricula, are abundantly used in a practical way each day of the year.

It is not necessary to compare results of one column as compared to another, such as comparing Pharmacy and Chemistry, or the latter with *Materia Medica*, since this is not at all a "competitive" study. However, such a study would be very interesting to make, and with modified methods of gathering the data, might prove valuable.

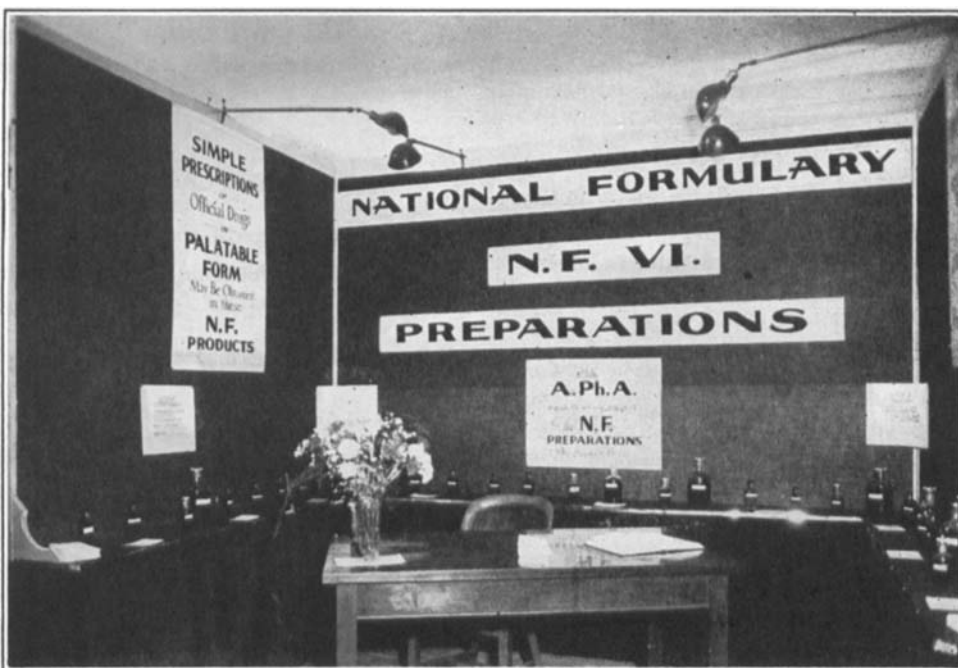
After the tables are completed and handed in, it has been the experience of the writer that the student shows much surprise at the amount of theoretical knowledge he is called upon to apply to his daily occupation or prospective vocation; in fact, the longer the previous experience of the student in the drug store, quite often, the more surprised he is at the results, for he did not realize how much or how often he really was called on to apply his knowledge of *Materia Medica*.

This experiment serves to convince the Pharmacy student of *Materia Medica* that the theoretical subjects within this department are not so theoretical after all. He discovers this by virtue of *his own findings!* It adds greater impetus to the desire on the part of the student to study the subject; or where there is not initial desire, it often creates one. It might further be pointed out here that in several instances the "boss" helped the student to gather the data, which in itself attached some importance to the experiment that was carried out by the student.

No better method has so far been devised, as far as the writer knows, which will motivate the student of a pharmacy school in the direction of the so-called theoretical subject of *Materia Medica* or its allied branches.

NOTE: The designation / signifies a check mark.

THE AMERICAN PHARMACEUTICAL ASSOCIATION EXHIBIT AT THE  
AMERICAN MEDICAL ASSOCIATION CONVENTION, SAN FRANCISCO,  
CALIF., JUNE 13TH TO 17TH.



Popular N. F. VI vehicles were featured. Those shown were Syrup of Glycyrrhiza, Syrup of Cherry, Syrup of Acacia, Syrup of Cinnamon, Aromatic Syrup of Eriodictyon and Isoalcoholic Elixir. Quart-glass-stoppered bottles were used to show the syrups. A four-ounce glass-stoppered bottle of each syrup was used for tasting purposes by the visiting physicians. Small glazed paper tasting spoons were furnished for each interested visitor.

The ten prescriptions, following, were exhibited as representing finished products employing the above-named vehicles. The prescriptions were numbered and a card carrying the same prescription number gave the Ingredients, Quantity, Directions and Use. Two bottles were prepared for each prescription, one for display and one for tasting purposes. The new easy pour, screw-cap prescription bottles were used. Paper of two sizes was handy on the desk for physicians to make notes.

"Notes for the Physician from the N. F. VI, No. 8," was given to each visitor. The exhibit proved very popular, many physicians tasting, asking questions and copying the prescriptions.

A portion of the exhibit was transferred to Oakland, June 19th to 22nd, for the California Pharmaceutical Association Convention. The Isoalcoholic Elixir and Syrup of Cherry were featured items at this Convention to acquaint the pharmacist with the proper technique in filling prescriptions calling for Isoalcoholic Elixir.

The exhibit was in charge of Prof. Julian M. Wells of the College of Pharmacy, University of California, under the general direction of Prof. Troy M. Daniels, and assisted by Mr. B. J. Kingwell.

## R̄ 1.

Potassium Bromide	30 Gm.
Distilled Water	30 cc.
Syrup of Glycyrrhiza, <i>q. s.</i>	120 cc.

*Sig:* One teaspoonful in glassful milk after meals and at bedtime. (Nerve Sedative.)

## R̄ 2.

Ammonium Chloride	10 Gm.
Syrup of Glycyrrhiza, <i>q. s.</i>	120 cc.

*Sig:* One teaspoonful in half glassful of water every two hours. (Expectorant.)

## R̄ 3.

Iron and Ammonium Citrate	10 Gm.
Distilled Water	5 cc.
Syrup of Cherry, <i>q. s.</i>	120 cc.

*Sig:* Teaspoonful to tablespoonful in water three times daily after meals. (Hematinic Tonic.)

## R̄ 4.

Diluted Hydrochloric Acid	10 cc.
Syrup of Cherry, <i>q. s.</i>	120 cc.

*Sig:* Teaspoonful in wineglassful of water three times daily after meals. (Digestant in Hypochlorhydria.)

## R̄ 5.

Urea	15 Gm.
Syrup of Cherry, <i>q. s.</i>	60 cc.

*Sig:* Teaspoonful in water every three hours. (Diuretic.)

## R̄ 6.

Syrup of Ephedrine Sulfate	60 cc.
N. F. VI	

*Sig:* One teaspoonful in water. (Antispasmodic.)

## R̄ 7.

Iron and Ammonium Citrate	10 Gm.
Distilled Water	10 cc.
Syrup of Cinnamon, <i>q. s.</i>	120 cc.

*Sig:* Tablespoonful in water three times daily after meals. (Hematinic Tonic.)

## R̄ 8.

Urea	15 Gm.
Syrup of Acacia, <i>q. s.</i>	60 cc.

*Sig:* Teaspoonful in water every three or four hours. (Diuretic.)

## R̄ 9.

Strychnine Sulfate	0.015 Gm.
Aromatic Syrup of Eriodictyon, <i>q. s.</i>	60 cc.

*Sig:* Teaspoonful three times a day after meals. (Motor Excitant.)

## R̄ 10.

Tincture of Digitalis	30 cc.
Isoalcoholic Elixir, <i>q. s.</i>	120 cc.

*Sig:* Teaspoonful in water three times daily after meals. (Cardiant.)

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*Important.* A complete revision of the regulations governing the importers, manufacturers wholesalers and retailers licensed under the Harrison Narcotic Act and other Federal narcotic laws has been prepared by the Bureau of Narcotics, U. S. Department of the Treasury. It is expected that copies of the revised regulations will be made available, during July or August, to the Deputy Collectors of Internal Revenue for distribution to every registrant. A codification of these regulations became necessary under Act of Congress requiring a codification of all regulations under Federal Acts. It was thought advisable to bring them completely up-to-date at the same time and this explains the revision.