

THE DENTIST AND THE PHARMACIST'S OPPORTUNITY FOR PROFESSIONAL SERVICE.*

BY GEORGE C. SCHICKS.¹

Chaotic business conditions of the past two years have demonstrated the need for sound business organization. Slipshod business methods, marketing of commodities for which there is little demand, lack of aggressive merchandising and a host of other unbusinesslike procedures, point very clearly to the fact that a business established in such a manner cannot long withstand the ravages of economic distress.

However, even though there is business distress on every side and competition is daily becoming a more serious problem, even though profits may be less and daily sales smaller, there is still a place for optimism—there is still a way out.

Real business security for pharmacists in these days of vicious competition can come in but one way—in the further development of the professional aspect of their services. In that aspect they alone in this whole retail business world, are equipped by training and licensed by law to carry on their professional services. No cigar store, no cosmetic shop, no cafeteria, no variety store, no lunch wagon can rob them of their licensed right to compound prescriptions.

That licensed right of which I speak is the sole reason for the existence of every drug store in this country.

It must be realized that pharmacists are an essential link in the chain which necessity has forged to bind up the wounds of man. That's their job!

Why, then, don't they make every effort to build up the professional phase of their business? Some phase of commodity merchandising is essential in all stores. This must be done efficiently and legitimate profits made, but priceless time must not be spent worrying about how many cigars the store across the street sells. By selling cigars pharmacists have made themselves competitors of 33,381 cigar stores, 62,648 candy stores, 7643 news dealers and many others, all selling cigars in this country. Selling lip sticks makes them competitors of cosmetic shops. Selling sandwiches makes them competitors of 62,648 candy and soda fountain establishments, and 135,674 eating places, not including hotels and countless roadstands.

When pharmacists know, then, that they are one of only 100,000 registered pharmacists in this country of 122,775,000 souls; that there is one drug store for every 2125 persons in this country; that 57,716 drug stores in one year did one billion, six hundred eighty-four million dollars worth of business; that the independent business which depends largely on the scale of commodities for its existence is the business which, with the increase in competition in commodities, is the business which will suffer the most; that as the majority of drug stores are organized to-day that real competition comes in the commodity phase of business; when they know the real reason for the existence of drug stores lies in the fact that they are trained and licensed to carry on a profession—when they know all these things to be true, why, then, don't they set themselves about the business of being honest to goodness pharmacists?

* Section on Practical Pharmacy and Dispensing, A. PH. A., Toronto meeting, 1932.

¹ Assistant Dean, Rutgers University, College of Pharmacy.

The St. Louis Survey uncovered in its multitude of facts one very significant fact which I am going to bring to your attention. Quoting from Wroe Alderson's report:

"The retail drug trade, with a few notable exceptions, does not engage in aggressive merchandising, and hence is not fully capitalizing its opportunities for the creation of demand."

I may also add that the retail drug trade does not engage in aggressive merchandising of its professional service in its prescription department.

What did the Department of Commerce find out pharmacists do to get business? It found out that the great majority of them stand in their stores and wait for business to come to them. Is that creating a demand for either their merchandise or their services?

How many times does a salesman enter a store? If his firm is given an order for its merchandise, does he take the order and then forget that that pharmacist is in business? Men in business know that if a firm is given an order that firm will keep in touch with its customer until it gets either additional orders or a final refusal of a re-order, and if it gets a final refusal it isn't going to take that business establishment long to find out what is wrong with either its service or its product—and in order to keep in business it has to make that wrong, right.

What would happen were pharmacists to use similar methods to get business for themselves? What would happen were they to increase their professional service—which brings me to the subject of this paper.

In the introduction to this paper I have called attention to the fact that real business security for the man in the retail drug stores lies in the further development of the professional aspect of his services. There the field is narrowed down to professional groups from which he may expect to obtain increased business. I shall give my attention to but one specific group, namely, the dental profession. There is no professional group to-day more eager to be told the truth about drugs and preparations which have real merit than the dentists. The best minds in the dental profession are pointing out the advantages of using drugs which the medical profession have proven as standard recognized therapeutic agents. They are pointing out the advantage of prescribing U. S. P. and N. F. official drugs and those listed in the New and Non-Official Remedies, published by the American Medical Association. The American Dental Association is encouraging at every opportunity the use of official drugs—could there be a better opportunity for the pharmacist to step in and enlarge his field of professional service?

There are 67,000 dentists in the United States who prescribe drugs in a limited way. There are no statistics available which show how many of these dentists dispense their own prescriptions. This data is being determined by Rutgers University College of Pharmacy, and will be reported upon at a later date. I feel rather certain, however, that the number will be small.

Many dentists prescribe by word of mouth, telling their patients to get a bottle of this or a box of that at some drug store they pass on the way home. Almost always, too, the dentist gives them a sample of some kind to relieve a painful extraction or treat some oral condition. These samples are usually left by salesmen of proprietary dental remedies. This method of advertising, employed by dental proprietary manufacturers who sell products with false claims, is not only

exploiting the dental profession but it is fostering the habit of self-medication—a practice which is neither fair to the dentist nor to his patient.

In a campaign to gain the business of the dentist the pharmacist should thoroughly familiarize himself with the requirements of the dentist in his daily practice. It is quite necessary that the pharmacist know the different branches of specialization in dentistry so that he can foresee the needs of the dental specialist and talk intelligently with him.

A dentist may be a general practitioner or he may specialize in one or more of the following branches of dentistry:

1. *Orthodontia*, or the correction of irregularities of the teeth.
2. *Oral Surgery*, or the operative dentistry and extractions.
3. *Peridontia*, or the treatment of diseased conditions of the tissues adjacent to the teeth.
4. *Oral prosthesis*, or the replacement of missing parts by artificial substitution.
5. *Radiodontia*, or X-ray studies of the teeth and adjacent tissues, including diagnosis.
6. *Dental medicine*, or preventive dentistry.

To aid the pharmacist who desires to increase the professional part of his business by obtaining the support of the dental profession the following formulas may be valuable. Through the coöperation of Rutgers University College of Pharmacy, the National Association of Retail Druggists is publishing a booklet on U. S. P. and N. F. Drugs and Preparations, which will be available at cost. The expense of presenting one to each dentist in a neighborhood without charge will be negligible. This will give pharmacists an excellent opportunity to call on the dentists and to become acquainted.

FORMULAS.

The first formula presented is for a *Tooth-Paste Base*. This paste may be used as a base for the incorporation of many medicaments such as antiseptics, germicides and astringents used in oral hygiene or in the treatment of oral diseases. Such a base affords the dentist an opportunity to prescribe the medication he wants and in the strength he desires, as governed by the pathological condition of the patient. He may also have added a flavor acceptable to the patient and a color to add attractiveness to the paste.

The dentist does not have available to him at the present time a medicated tooth-paste in which the strength of the medication is governed by the pathological condition of the patient.

It would be unfortunate if this formula should be interpreted as another tooth-paste on the market to be sold to any one over the counter. This tooth-paste should be dispensed only on the prescription of the dentist. This is a professional service pharmacists are rendering to the dentist. The value of medication in tooth-pastes is questionable but millions of tubes of medicated pastes are sold each year and dentists do suggest their use. If any medicated tooth-paste has therapeutic value, such action as it may have should be made to meet the condition of the disease treated. The disease should not be made to fit the medication in the tooth-paste, but the tooth-paste should be made to meet the requirements of the patient.

TOOTH-PASTE BASE.

Precipitated calcium carbonate.....	55.25 Gm.
Powdered castile soap.....	6.00 Gm.
Glycerin.....	34.00 cc.
Liquid petrolatum.....	1.50 cc.
Saccharin—soluble.....	0.05 Gm.
Water.....	2.50 cc.

Make a paste and dispense in a tube with large opening at cap end.
A suitable flavor may be obtained by adding 1 cc. of oil of peppermint.

Mix the calcium carbonate and soap together by sieving through a No. 60-mesh sieve. Dissolve saccharin in water and add to the mixture of glycerin, the volatile oil, if used, and the liquid petrolatum. This makes a smooth, creamy white paste which may be colored pink if desired by using 0.154 Gm. of Cherry Red No. 2.

This is not a soap paste; the soap is used as a binder and will not cause a lather.

The oil of peppermint may be replaced by any other volatile oil or combination of volatile oils used as a flavor. The taste may be increased or decreased as desired by adding to or limiting the amount of flavor.

Medicated pastes should be dispensed only on the prescription of the dentist.

80 Gm.—large tube of this paste costs approximately 5 cents.

50 Gm.—medium tube, costs about 3 cents for ingredients used minus tube. The tube may increase the cost from 3–6 cents according to the kind of tube used.

SOAP TOOTH-PASTE BASE.

Precipitated calcium carbonate.....	50.00 Gm.
Saponis Mollis U. S. P. IX.....	12.59 Gm.
Glycerin.....	18.88 cc.

Make into a paste.

Add the glycerin gradually to the soft soap in a mortar and triturate until soap is dissolved. Then add the resulting liquid in small amounts to the carbonate, triturating well after each addition until a smooth, creamy paste results. The glycerin and soft soap will first cause considerable foam which will cease and a clear liquid remain. It may be used while foaming, if desired.

An easy and very satisfactory method to make this paste is as follows:

Precipitated calcium carbonate—desired amount.
Excipient—sufficient to make paste of proper consistency.

The excipient is made by dissolving 10 parts of soft soap U. S. P. IX in 15 parts of glycerin. The excipient gives a suitable color to the paste.

Flavor: The following formula per 100 Gm. of paste gives a pleasing taste:

Benzoic acid.....	0.25 Gm.
Thymol.....	0.25 Gm.
Saccharin, soluble.....	0.25 Gm.
Oil of eucalyptus.....	1.50 cc.
Oil of peppermint.....	1.50 cc.

If the paste is to be flavored, the above ingredients, after first being mixed, are added to the excipient. Dissolve the thymol and benzoic acid in the volatile oils and the saccharin in the water used in the excipient. Deduct the quantity of flavor used from the general excipient so that the paste will not become too soft.

This paste produces a rich, soapy foam when brushed on the teeth and leaves a cool, clean sensation in the mouth if above flavor is used. The flavor may be changed, if desired, by using other volatile oils. It will have a yellow tint due to the soft soap.

80 Gm.—large tube of this paste costs approximately 6½ cents.

50 Gm.—medium tube, costs approximately 4 cents; both prices are for ingredients only.

CARBONATE TOOTH-PASTE.

(With flavor.)

Magnesium carbonate.....	5.00 Gm
Calcium carbonate, precipitated.....	65.00 Gm.
Powdered castile soap.....	5.00 Gm.
Powdered tragacanth.....	1.50 Gm.
Saccharin, soluble.....	0.075 Gm.
Glycerin.....	38.00 cc.
Water.....	2.00 cc.
Liquid petrolatum.....	2.00 cc.
Oil of spearmint.....	0.50 cc.
Oil of peppermint.....	1.00 cc.

Make a paste and dispense in a tube with wide opening at cap.

Pass the soap, tragacanth, magnesium and calcium carbonate through a No. 60-mesh sieve. Dissolve the saccharin in the water and add to the glycerin and liquid petrolatum. Mix volatile oils and add to glycerin. Incorporate the liquids into the powder until a smooth, creamy paste results.

If a combination of volatile oils is to be used as a flavor it is best to mix them and let stand for a few days. The blending of the oils adds much to the flavor. It may be colored green with 0.154 Gm. of mint green No. 31 if desired.

80 Gm.—large tube of this paste costs about 5 cents.

50 Gm.—medium tube, costs about 3 cents for ingredients only. The tube is extra.

ALKALINE TOOTH POWDER.

Sodium bicarbonate.....	150.00 Gm.
Carmine No. 40, powder.....	0.01 Gm.
Methyl salicylate.....	1.00 cc.
Oil of clove.....	1.00 cc.

Make into tooth powder and dispense in glass bottles

Add the carmine to a small amount of sodium bicarbonate in a mortar and triturate until color is thoroughly distributed, then add it to the balance of the bicarbonate of soda and mix until uniform color results. Finally incorporate the volatile oils and place in bottle. This makes a harmless, pleasant tooth powder.

OXIDIZING POWDER FOR MOUTH WASH.

Sodium perborate.....	100.00 Gm.
Carmine No. 40.....	0.03 Gm.
Oil of cinnamon.....	2.00 cc.

Dispense in glass bottle.

Mix and make a powder.

Add the carmine to a small amount of the powder in a mortar and triturate until the color is distributed. Add this to the remainder of the powder and triturate until a uniform color results. Lastly add the Oil of Cinnamon.

Plain sodium perborate is more or less disagreeable to taste but with the addition of Oil of Cinnamon the taste is largely disguised. The color is also pleasing.

Dissolve one drachm in a glass of warm water and rinse mouth. It may be used as a tooth-powder if desired, on moistened tooth-brush.

MOUTH RINSE No. 1.

Saccharin, soluble.....	0.10 Gm.
Fuchsin, basic.....	0.02 Gm.
Oil of cinnamon.....	0.25 cc.
Oil of peppermint.....	0.25 cc.
Oil of clove.....	0.50 cc.
Alcohol.....	300.00 cc.
Talc.....	10.00 Gm.
Distilled water <i>q. s.</i>	1000.00 cc.

Make mouth wash.

Dissolve the saccharin in 10 cc. of water and the fuchsin and volatile oils in 250 cc. of alcohol. Add slowly to the 700 cc. of water and filter through talc. Finally add the remaining 50 cc. of alcohol to make 1000 cc. of finished product.

This is a non-medicated mouth rinse, colored and flavored. It may be diluted with 2-3 parts of water and used to rinse mouth, leaving a pleasant after-taste.

MOUTH RINSE No. 2.

Thymol.....	0.50 Gm.
Menthol.....	1.00 Gm.
Oil of peppermint.....	3.00 cc.
Alcohol.....	300.00 cc.
Talc.....	10.00 Gm.
Distilled water <i>q. s.</i>	1000.00 cc.

Make mouth wash.

Dissolve thymol, menthol and volatile oils in 250-cc. alcohol. Add slowly to 850 cc. of water and filter through talc. Finally add remaining 50 cc. of alcohol to make the finished product measure 1000 cc. Product may be colored with Tincture of Cudbear if desired. It may be diluted with 2-3 parts of water and leaves a pleasant taste in the mouth.

MOUTH RINSE No. 3.

Menthol.....	0.50 Gm.
Thymol.....	0.50 Gm.
Eucalyptol.....	2.50 cc.
Methyl salicylate.....	0.60 cc.
Alcohol.....	150.00 cc.
Talc.....	10.00 Gm.
Distilled water <i>q. s.</i>	1000.00 cc.

Make mouth wash.

Dissolve the menthol, thymol and volatile oils in 125 cc. alcohol and add slowly to 850 cc. water, then filter through talc. Finally add 25 cc. of alcohol to filtrate to make the finished product measure 1000 cc. It may be colored green with green mint color No. 31 or red with Tincture of Cudbear.

Formulas for other mouth washes may be found in the U. S. P., National Formulary and Recipe Book.

These three mouth rinses may be used as basis for the incorporation of medicaments if a medicated rinse is desired by the dentist. Many dentists, however, prefer to use nothing but a simple colored and flavored mouth wash having no other purpose in mind than to give a different taste in the mouth. They do not expect an antiseptic or germicidal action from these types of mouth washes and it may be said that claims made concerning the germicidal power of so-called "antiseptic" mouth washes are usually misleading.

It is necessary that pharmacists be well informed about the medicaments dentists use in their practice. Valuable information of this kind may be obtained in a good medical or pharmaceutical library. Many of the more recent remedies used successfully by some dentists may be obtained from the *Journal of the American Dental Association*. In this journal will be found a monthly report issued by the Council on Dental Therapeutics, concerning the analysis of preparations upon which they have or have not given their stamp of approval. When an article is rejected you will find printed there the reason or reasons why it is not acceptable to the Council.

To those who do not know where to find a library containing dental publications and the *Journal of the American Dental Association*, make a visit to the College of Pharmacy in your state and consult their library. The city public library or the libraries of State Pharmaceutical and Medical Associations will contain interesting literature on this subject.

A DIRECT METHOD FOR STUDYING THE EFFICIENCY OF "ENTERIC" TABLETS.*

BY E. LOZINSKI AND G. R. DIVER.

There is often uncertainty as to the fate of enteric tablets after ingestion. This uncertainty is of some concern to those who desire to secure passage of the tablet, unchanged, through the stomach and assurance that after the tablet has passed into the intestinal tract, solution of the coating with liberation and absorption of the medicament takes place.

"In Vitro" experiments where the tablets remain intact in an artificial gastric juice and dissolve in a weakly alkaline solution, while serving as a useful guide, give no absolute assurance that the results are duplicated in the gastro-intestinal tract. The method to be described gives absolute information concerning the fate of enteric tablets and when correlated with "In Vitro" experiments may serve as a guide as to type and method of coating which is most suitable.

The method, although not strictly a laboratory procedure, may be carried out wherever a fluoroscope is available.

The procedure is as follows: One batch of tablets, each containing 0.3 Gm. of barium sulphate and another batch, each containing 0.3 Gm. of sodium salicylate, are coated, using exactly the same technique in each case. A subject, whose urine has been tested and shown to be free from substances giving a purple color with ferric chloride T.S., swallows one of each of the tablets. He is placed under a fluoroscope and the barium sulphate tablet is readily visualized. In from one to two hours, when it is judged that the barium tablet has left the stomach, a barium meal is given. The stomach is now visualized and the barium tablet may now conclusively be shown to have left the stomach and to be lying in the intestines. If the tablet is intact the evidence is conclusive that the coating has been efficient in protecting the medicament in its passage through the stomach. The urine is meanwhile tested every thirty minutes for the presence of salicylates. The test should be negative for at least half an hour after the barium tablet has

* Section on Practical Pharmacy and Dispensing, A. Ph. A., Toronto meeting.