90% of all those written by our doctors. Nine months ago the Clinic was remodeled and the Pharmacy was moved from the back of the second floor to the first floor, directly across from the elevator. Since this change, the Pharmacy income has increased an average of \$100.00 a month over that of the corresponding month of the previous year.

In closing, I wish to say that in my opinion no "set up" could give more professional satisfaction to the pharmacist than a Clinic Pharmacy. Daily contact with the same group of doctors and attendance at their monthly staff meetings has made me feel that I am a most essential part of their organization. With this self-satisfaction and the knowledge that the Pharmacy has been most successful financially and professionally, I can most heartily urge any pharmacist to become a part of a similar group.

THE PRINCIPLES FOR CORRECT PRESCRIPTION PRICING.*

BY GEORGE LOUIS SECORD.

Since the Prescription Department is the yardstick by which drug stores should be measured, it follows that prescription pricing is obviously of paramount importance. A seeming lack of understanding by great numbers of pharmacists of the principles underlying the operation of the Prescription Department and the great variation of the estimated cost of operation, even in the same districts, has offered to me the necessary stimuli to undertake a general investigation of the subject in an attempt to arrive at a rational basis on which to price medicine to the patient.

Two facts seem to stand out prominently in making a preliminary survey which in themselves would justify any effort made in this direction:

- 1. Insufficient remuneration from the Prescription Department resulting in discouragement to the pharmacist and thereby promoting more and more the merchandising phase of his business.
- 2. Lack of uniformity in pricing and the absence of a definite and reasonable basis for establishing the charge. This angle of our business is responsible for the skepticism of the physician and the frequent criticism he pours forth due to the lack of solidarity within our own ranks and the obvious lack of understanding on his part. Who could blame him when such great discrepancies such as we have all seen are brought home to him by his patients. This is one of the vital factors which has stimulated dispensing by many physicians. Naturally the physician wants his patients treated fairly and when one is charged more for the same item than another has paid, he immediately forms the opinion that the one paying the higher price has been charged too much. It has been my experience that usually the one paying the lower price has been charged too little. Patients with the same experience as cited for the physician, develop mistrust, start the shopping practice and finally resort to the unsavory and dangerous practice of self-medication. Need I remind you, that in many cases of this nature, the patient receives a large measure of co-

^{*} Section on Practical Pharmacy and Dispensing, A. Ph. A., Dallas meeting, 1936.

operation from the physician with resulting harm to himself and the profession as a whole.

We are living in a too highly developed age to permit our names or institutions to be made a part of "hit or miss" methods of bygone days. The security of our business demands scientific handling in other departments, why not the Prescription Department? Many methods have been suggested in the past but in nearly every case they have been predicated on "average" costs of prescriptions taken from hundreds of stores or built up on some other equally unreliable basis rather than on a definite scientific basis.

In justice to our profession, it should be our responsibility to embrace those principles in our suggestions which will stabilize our profession from a professional as well as an economic angle.

Our first element of consideration must be the Prescription Department covering:

- 1. Investment: (a) Stock. (b) Fixtures. (c) Equipment.
- 2. Expense of Operation: (a) Advertising. (b) Telephone. (c) Deliveries. (d) Depreciation of Stock, Fixtures and Equipment. (e) Repairs, Paper and Miscellaneous. (f) Physician's Blanks. (g) Sampling. (h) Loss on Accounts. (i) Window Dressing. (j) Sign Work. (k) Cleaning.
 - 3. Help for Prescription Department.
- 4. Based on floor space occupied, apportionment of: (a) Rent. (b) Light. (c) Insurance-Taxes. (d) Decorating.

A prescription department doing 40 prescriptions daily could operate this department with 15 hours of work by registered pharmacists and 15 hours of work by registered apprentices. At this junction we must not overlook the great waste of time which takes place in the prescription department and about which we can do nothing. This thought embraces the amount of time given to the discussion of prescriptions with customers; the telephone call-backs for proper directions not given on the label; the demands made by the customer to locate a prescription that was filled on such and such a day, and seldom proves to be the case; telephone refills; the time given up to consultations with the medical profession and numberless other interruptions which make up easily one-third of the total hours ($^{1}/_{3}$ of 15 hours) in the day. It is obvious, then, that only ten of the fifteen hours are actually devoted to the work of compounding prescriptions. Therefore, in order to properly assimilate the overhead, it is necessary to base the day on 10 hours instead of 15.

I am sure we realize too well, that salaries of pharmacists during the past five years have been far too low for us to expect that these highly trained men would remain in the profession, or that we, as pharmacists, should command professional respect as a consequence of the economic letdown.

With the possible exception of rent in certain areas, the other expenses of operation, excluding salaries, remain about the same as in normal times. The author is of the opinion that the week-work period for pharmacists should be 50 hours and that the minimum schedule of compensation should be: (a) Pharmacists \$1.00 per hour. (b) Assistant Pharmacists or equivalent \$.70 per hour. (c) Apprentices, over one year experience, \$.30 per hour and up.

The following schedule of expenses, after considerable study, has been accepted as fair and appropriate:

40 AVERAGE PRESCRIPTIONS DAILY.

		Daily.				
1.	Registered Pharmacists 15 hours @ \$1.00 per hour	\$15 .00				
2.	Registered Apprentices 15 hours @ .30 per hour	4.50				
3.	Delivery expense: car-fare, etc.	1.00				
4.	Taxes and Insurance pro-rated	. 55				
5.	Depreciation stock and fixtures pro-rated \$1.50; interest on investment \$1.00	2.50				
6.	Repairs—paper—breakage—miscellaneous					
7.	Physicans, Dentists and Store Blanks					
8.	Advertising: Medical Bulletins, Letters—Donations pro-rated, Sampling					
9.	Telephone	.75				
10.	Store Expense pro-rated: Rent, Light, Cleaning, Window Trimming, Window					
	Cards, Miscellaneous Help.	6.00				
	Total Expense	\$32.75				
Profit on sales of proprietaries, drugs, etc., made in Prescription Department						
Daily overhead charged to prescription operation.						

The average profit return on the sale of proprietary medicines, drugs, oils, etc., is \$2.75. This deducted from the total prescription expense, leaves \$30.00 assignable strictly to prescription compounding.

Based on ten actual hours of work, it is obvious that the cost *per hour* of operating a prescription department compounding 40 prescriptions daily, is \$3.00. It follows, therefore, that each prescription compounded must bear its proportionate share of the operating costs depending upon the amount of time required in each case. If 40 prescriptions are compounded in the working day and ten hours represents the time consumed, then, if each prescription required the same amount of time, 15 minutes would be necessary for each.

It would seem hardly necessary to mention that the foregoing merely takes care of the *time element* in the prescription department. As a matter of fact, we know too well that in the case of many prescriptions it is difficult to obtain even the full retail price, to say nothing of the added cost of handling the item in the Prescription Department. Every department of business should show a profit. With simple ready-made preparations we have one problem; with the compounded type of prescription, another. I have pondered the question of pricing these two general types, and have at times even considered the advisability of disregarding the ready-made type of trade-marked prescription from the timing angle, and leaving only the ethical ready-made type of product and the compounded type of prescription. Obviously, under this plan the cost per hour would be increased, in some instances, to a disproportionate degree. To cover loss occasioned by the filling of this type of prescription, and to attempt to procure a profit on the operation of this Department, the following methods are suggested:

A careful survey has revealed that most prescriptions can be conveniently divided into four classes, namely:

- 1. Inexpensive Compounded Prescriptions.
- 2. Expensive Compounded Prescriptions.
- 3. Inexpensive Ready-Made Prescriptions.
- 4. Expensive Ready-Made Prescriptions.
- 1. This represents the simple type of compounded prescription which so frequently comes to the prescription department. It consists of from two to four ingredients, the cost of which does not exceed a certain factor depending on the quantity. For the purpose of presenting

the thought, let us accept a 4-ounce liquid prescription, containing four ingredients, the cost of which, together with the container, is 25¢. The average time element for handling a prescription of this kind has been calculated at eight minutes, counting from the time of its receipt to the final wrapping and placing at the disposal of the customer. If we follow the simple procedure of doubling the cost and adding the time element, the minimum charge for a prescription of this kind would be 90¢. It is obvious that since the time-charge represents a definite and previously contracted expense, the 25 cent profit, which is less than 25% on the selling price, represents the only effort to obtain a profit on the transaction. This same principle is followed with each class and size of prescription.

- 2. This class represents the more expensive type of prescription. Experience reveals that the majority in this class do not rise in cost above \$.50 including the container. Up to a cost of \$.50 the same procedure is recommended as above, namely, double the cost, then add the time element. When the cost of materials rises above \$.50, it is recommended that a profit of 50% of this amount which is over \$.50 be added to the price of the prescription. This provision merely allows the pharmacist a reasonable profit on the extra merchandise used in the prescription and in thousands of cases has proven equitable and acceptable to all concerned.
- 3. This class represents ready-made preparations of all types, the cost of which does not exceed a certain cost-factor for any given amount. To this is added the time element, which varies slightly with each quantity. Here, as in Class 1, minimums are established. When the cost of materials or the time element is such as to increase the price of a prescription, it automatically falls into Class 4.
- 4. This class deals with the more expensive types of ready-made preparations; that is, those prescriptions the cost of the ingredients of which, rise above the cost-factor which would keep them in Class 3. A low cost calls for a high margin of profit which is in direct proportion to the time element plus a small profit as in Class 3. Before applying the principle of pricing in this group, the price should be checked back against the minimum price in Class 3. It is obvious, that unless the price in group 4 is higher than the minimum price given in Class 3, then the price in Class 3 must prevail.

In addition to these four groupings there are types presenting special features which must not be overlooked. These special features include those prescriptions the cost of which must be determined, principally, on a time basis; they may be represented as follows:

The time element is important in all compounded prescriptions and, especially, in such operations as require a relatively long period in the handling of the prescription; for example, the making of large amounts of hand-made pills. Herein the cost of materials is usually insignificant, but the time factor reaches an important notch in our calculation. Another example is in the making of enterically coated capsules. This type of prescription requires very careful handling; each capsule must be handled twice and in those cases where imperfections occur it is necessary to re-dip; hermetically sealed capsules present another example. The making of powders and capsules and many ointments (the latter frequently requiring long levigation) present more of the problems in reaching a satisfactory conclusion as to price. Emulsions, Infusions and Decoctions are three more classes which must be treated separately. Careful examination of the time factor reveals that as a rule half more time is necessary to handle these classes of products than for ordinary compounded liquid prescriptions.

The author is certain that every pharmacist is daily confronted with the problem of adjusting the price of a prescription when the patient requests an increased quantity, for an example, two or three times the original. It will be admitted that the time for compounding a larger amount of a liquid preparation is very little more than for the smaller quantity. Granted it does take somewhat longer to weigh or measure a larger quantity in most cases but not in the same proportion as many believe. Therefore, in establishing a professional fee for an 8-ounce-prescription compared with a 4-ounce preparation, a careful adjustment of the time factor must be made.

In the case of powders and similar preparations the time spread is greater, owing to the amount of work necessary in distributing, folding and handling. In the distribution and filling of capsules and in the massing, rolling, cutting and shaping of pills, there also is an important time factor to be considered for each additional quantity.

These well-known cases are cited to bring to the attention of the members the great need for a careful analysis of the prescription problems.

Two other questions require consideration:

- 1. Prescriptions calling for extemporaneous preparations from the U. S. P. and N. F. or other standard works.
- 2. Prescriptions ordered "over the counter" by the patient not on an official prescription blank, but as a memo from a newspaper clipping or book, some other form of publication, or given orally.

In example No. 1, a prescription is cited calling for Basham's Mixture. When the physician writes for 4-ounces of Basham's Mixture, it is equivalent to placing all of the ingredients for Basham's Mixture on the blank in the form of a prescription and requesting that it be compounded. The fact that the preparation is known under an official title does not obviate the necessity of handling it like any other prescription for a compounded preparation. In that event, then, the prescription should be priced like any other, coming under the heading of compounded prescriptions of the more expensive type.

As example No. 2: A call comes for two ounces of 20% Ointment of Ichthyol with 10 drops of Liquefied Phenol. Obviously, there is just as much work in the compounding of this type of order as though the call came on a regular physician's prescription, except that the work of numbering and labeling and the filing is eliminated. It is reasonable to believe that some consideration should be shown on prescriptions of this type, but depending on their nature, this difference should not exceed 25% in favor of the customer. Lastly, how shall those prescriptions be handled which contain, for example, two ingredients, one of which is unimportant therapeutically and employed as a color or introduced obviously for the purpose of preventing self-medication.

The author has watched with increasing interest physicians and patients alike, the effect from the lack of uniformity in prescription pricing. It is unfortunately true that in all too many cases the price placed on a prescription is little more than a gesture unsupported by any fact, judgment or reason. It is unquestionably true that irregular prescription pricing is the cause of much wonderment on the part of the patient, this inconsistency developing skepticism, creating doubt and encouraging the "shopping" practice, which in turn, through the pressure exerted through the price angle is responsible for a large number of substitutions as well as hurried operations which carry with them error and an exhibition of poor pharmacy. These vicious angles have been responsible for many pharmacists (lacking perhaps in the courage necessary to meet conditions of that kind) abandoning any active program in behalf of ethical pharmacy and resorting to merchandising practices which in

their belief were attended with fewer complications, less grief and an opportunity for greater profits than provided under the difficulties attending the operation of the prescription department.

Based on the above principles, a draft of a rational Prescription Pricing Schedule is submitted for the consideration of the Committee of Practical Pharmacy and Dispensing, expressing the hope that this work may prove helpful in giving retail pharmacists some information which is needed in the conduct of the Prescription Departments.¹

PRESCRIPTION PRICING SCHEDULE.

CLASS A. Applied to inexpensive Compounded Prescriptions.

					Min	IMUM	PRICE	s.					
Liquids or Bulk Powders by Volume.		Liquids or Bulk Powders by Volume,		Capsules, Pills, Powders.		Ointments.		Suppositories.		Cachets.		Inunctions.	
Interna	l Use	Externa	l Use	No.	Price	Oz.	Price	Rectal-	Urethral	No.	Price	No.	Price
Volume	Price	Volume	Price					No.	Price				
l oz.	\$.65	1 oz.	\$.60	3	\$.50	$^{1}/_{2}$	\$.65	6	\$1.00	3	\$.60	6	\$.90
etc.		etc.		ete	2.	etc		etc.		е	tc.	etc	2.
						Au	ral-Na	sal-Vag.		Drop	per B	ottle	
						1	No. P	rice		Pre	scripti	ons.	
							6 \$	1.30	Intern	ıal		Exte	rnal
									Vol.	Price	2	Vol.	Price
									$^{1}/_{4}$ oz.	\$.70) 1	1/4 oz.	\$.65

CLASS B. Applied to compounded prescriptions too expensive for pricing under CLASS A. RULE FOR PRICING:

- 1. Determine the cost of each ingredient. Add cost of container.
- 2. (a) If cost of ingredients and container is not more than \$.50, multiply by 2. (b) If cost is in excess of \$.50, multiply the first \$.50 of the cost by 2, then add 1/2 of the amount over \$.50.
- 3. Add Professional fee given below to obtain the price of the prescription. (Professional fee covers the element of time necessary for Inspection, Compounding and Labeling.)

PROFESSIONAL FEES.

Liquids or Bulk. (Fill in other classes here the same as given in Class A.)

Powders by Volume.

Internal Use

Volume Prof. Fee

1 oz.	\$.30	etc.	etc.	etc.
2 oz.	.35			
3 oz.	.35			
4 oz.	.40			

CLASS C. Applied to inexpensive Ready-Made preparations either Trade-Marked or Standard.

MINIMUM PRICES.

Liquids or Bulk. (Other classes to be filled in here the same as given in Class A.)

Powders by Volume.
Internal Use

Volume Price

1 oz. \$.55

¹ If desired, the author will be happy to supply all prices under Classes A, B, C & D; also regulations for the Prescription Department as well as a set of instructions for use and a special section on the prices governing the sale of Proprietaries, Tinctures, Herbs, Salts and other substances sold in the Prescription Department.

CLASS D. Applied to Ready-Made preparations whether Trade-Marked or Standard, too expensive for pricing under Class C.

Cost Including Container.	Percentage to Be Charged on Cost.	Selling Price to Customer.		
\$.2 0	200	\$.60		
.25	180	.70		
.3 0	160	.80		
etc.				

Explanation of Rule for Pricing under Class B; under 1:

It is assumed that a 4-ounce liquid preparation is dispensed for internal use, the cost of ingredients for which is \$.35.

Multiply 3.35 by 2 = 3.70.

Now add the Professional fee for 4-ounce preparations under liquid preparations for internal use (1st column). \$.70 plus \$.40 = \$1.10.

Explanation of Rule for pricing under Class B, under heading 2 (b).

It is assumed that 30 capsules are dispensed, the cost of ingredients for which is \$1.50. Cost = \$1.50.

Multiply cost up to \$.50 by 2. Add this to Cost: \$1.50 plus \$1.00 = \$2.50.

Take $\frac{1}{2}$ of the amount of cost over \$.50. In this case the amount over \$.50 is \$1.00. $\frac{1}{2}$ of \$1.00 is \$.50.

\$2.50 plus \$.50 = \$3.00.

To this is to be added the professional fee. (Fee covering time element given under Class B.)

Professional Fee for 30 capsules is \$.75.

\$3.00 plus \$.75 = \$3.75, the cost of the prescription to patient.

SYRUP OF AMMONIUM MANDELATE.

BY B. FANTUS AND O. U. SISSON.

Mandelic acid, first introduced by M. L. Rosenheim (1) but a year and a half ago, seems to be taking the country by storm, both in the number of articles published and in the number of proprietary forms in which it is offered on the market. These signs augur well for the probability that a valuable remedy has been added to our armamentarium. The chief drawback in the present situation is the costliness of mandelic acid which reflects itself—multiplied, of course—in the price charged the patient for the proprietary preparation. This is particularly unfortunate, in view of the fact that mandelic acid must be administered in large quantities (8 to 12 Gm. daily) in order to produce the desired therapeutic effect.

With the hope of making it possible for the pharmacist to deliver a suitable product at a lower price than he would have to charge for any one of the proprietary preparations—which latter must necessarily include advertising charges—we are offering a formula for a Syrup of Ammonium Mandelate, with the hope that it might serve as a basis for discussion, criticism and possible improvement.

While A. L. Clark (2) advocates the sodium salt of mandelic acid, he admits that the objection to it is the large quantity of ammonium chloride that must be administered in conjunction with this salt in order to overcome the alkalinizing action of the base. It is obviously better, therefore, to employ ammonium mandelate. As this salt is hygroscopic, it is desirable that it be prepared extemporane-