so well and arrive at the conclusion that we are headed in rather unfortunate ways and on another morning he can convince himself that we are headed in exactly the opposite direction. He did not know how he felt on the average number of days; sometimes good, sometimes bad and sometimes just sort of so-so. He had enjoyed listening to the discussions and believed that the work of the section is definitely headed up hill.

A PROCEDURE IN PRESCRIPTION PRICING.*

BY LEONARD A. SELTZER AND A. ALTON WHEELER.

One of the most sensitive points of contact between the pharmacist and his customer is that which involves the pricing of prescriptions. Sensitive, on the one hand, because of the trust the customer, willing or not, must place in the pharmacist, and on the other hand, sensitive because the reputation of the latter for honesty, good faith and competency is involved. Not only is this point of contact one of the most sensitive, it is also one of the most complex. Complex, because factors so diverse as those of time, service, cost and overhead, in almost kaleidoscopic variations, must be quickly converted into terms of dollars and cents. Yet notwithstanding its importance and complexity little has been done and no real solution has been arrived at.

In arranging a price schedule for prescriptions there are two main objectives to be kept in mind. It shall provide in every case sufficient profit to adequately remunerate the pharmacist on the one hand and, on the other, it shall automatically avoid the error of excessive prices which would result not only in injustice to the customer, but loss of his confidence as well. In order to accomplish this it is necessary to provide that, when the cost of the material is so small that a reasonable rate of profit based on that cost does not provide sufficient actual return, then an item representing overhead, sufficiently elastic to meet varying conditions, and make the transaction profitable; on the other hand, if the item of cost is so large that a reasonable rate of profit based on it furnishes a substantial actual return, then the item of overhead should automatically diminish so as to avoid an excessive and unjust charge. Another objective is to provide for the different quality of service rendered in different stores. This can be done by adjusting the item of overhead to meet the conditions. By this means the schedule can be made to apply to any store.

The first step in arranging a price schedule is to classify the different kinds of preparations so that those preparations which are affected similarly by the several factors, such as cost, service (as measured by the number of doses or volume), and overhead, form the several groups. The classification which we have found convenient are first, ready made pills and tablets; second, liquids; third, ointments; fourth, capsules, hand-made pills, powders and suppositories.

In the first group the formula for computing price, changes each time that the price per hundred advances $1.00. Thus, for pills and tablets costing $1.00 per hundred or less the formula is: Fr. plus $^1/_2$ plus 2x; between $1.00 and $2.00 per hundred the formula is: Fr. plus $^1/_2$ plus x; between $2.00 and $3.00 the formula is: Fr. plus $^1/_3$ plus x; between $3.00 and $4.00 the formula is: Fr. plus $^1/_4$ plus x; and so on; which means—that the price per hundred is divided by the fractional

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* Read before Section on Commercial Interests, A. PH. A., Philadelphia meeting, 1926.

Note.—The abbreviation "Fr" is for the word "fraction," meaning the fractional part of 100 that the prescription calls for—the price of the pills or tablets in the first column being the price per hundred. The term "overhead" as applied to "x" is not used in the ordinary accounting sense, but is an adjusting factor including everything not otherwise accounted for and modifying the result so as to make the transaction profitable.

portion of 100 used in the prescription; this amount is increased by the fraction indicated in the formula, $^1/_2$, $^1/_3$, or $^1/_4$ of itself as the case may be, and to the result is added "x" which is the item of overhead decided upon by each individual himself. In view of the fact that most pills are listed at 40% off and, if this is considered a fair profit for material, it may be found to be convenient to use the list price as a "cost of material" item. Pills listed at net can be reduced to a 40% basis by multiplying the net by $1^2/_3$, those listed at 15% by multiplying by $1^2/_5$, those listed at 20% by multiplying by $1^1/_3$, those listed at 25% by multiplying by $1^1/_5$. This is not absolutely accurate but practically so. Owing to the change of rate at each advance of $1.00 per hundred a trifling inconsistency occurs such as appears for example in the fact that one dozen pills listing $1.00 will cost more when computed by the formula "Fr. plus $^1/_2$ plus 2x" than one dozen pills listing $1.20 computed in the formula "Fr. plus $^1/_2$ plus x." To save time and avoid this inconsistency it is well to have a table for ordinary quantities worked out for ready reference. Such a table is appended in which the value of x is taken as $0.25 by way of illustration. This of course may be changed to meet individual conditions.

Price per C.	No. in prescription ℞. 12.	15.	20.	25.	36.	40.	50.	100.
			Formula: Fr. plus $^1/_2$ plus 2x.					
$0.35	60	60	60	65	70	75	80	100
0.50	60	60	65	70	75	80	85	125
0.75	65	65	75	80	85	95	105	165
100	70	75	80	85	100	110	125	200
			Formula: Fr. plus $^1/_2$ plus x.					
120	70	75	80	85	100	110	125	205
140	70	75	80	85	100	110	125	235
150	70	75	80	85	100	115	135	250
180	70	75	80	90	115	135	160	295
190	70	75	80	95	120	140	165	310
200	70	75	85	100	130	145	175	325
			Formula: Fr. plus $^1/_3$ plus x.					
220	70	75	90	100	130	145	175	325
240	70	75	90	105	130	155	185	345
250	70	75	90	105	135	160	190	355
280	70	80	100	120	145	175	210	395
290	70	80	105	120	160	180	220	410
300	80	80	105	125	160	185	225	425

Table for Liquids.

1 oz.	1x	$0.50
2 oz.	1.5x	0.75
3 oz.	2x	1.00
4 oz.	2.5x	1.25
6 oz.	2.8x	1.40
8 oz.	3x	1.50
12 oz.	4x	2.00
16 oz.	5x	3.00
32 oz.	8x	4.00

For liquids we use the following table:

Any value such as 35, 40 or 50 etc., can be given x as necessity may demand. For sake of illustration column 3 shows the result if 50 is taken as the value of x. Here x is the factor for overhead and the coefficient of x the service charge, the result is the minimum charge or the amount charged in all cases

where the cost, based on 40% profit, does not exceed 50% of this amount. If the cost on a 40% profit basis exceeds 50% of this result, then to such cost is added 50% of the above minimum charge. If it exceeds 100%[2] then to the cost is added 25% of the above minimum charge. If dosage is in drops the service charge is increased 50%. If dosage is in dessertspoonfuls discount, 10%; if in tablespoonfuls discount 20%, and if in ounces discount $33^1/_3$%. Gargles over 2 ounces and lotions over 3 ounces discount 40% provided that the prices shall not be reduced below $0.75 and $1.00 respectively. Minimum charges for bulk powders are computed on basis of volume and, using the above scale of service charge, discounted 10%. The same method of computation in cases when cost of material exceeds amount which can be included in the minimum charge is employed as in case of liquids.

For ointments we use the following table:

Table for Ointments.

1 oz.	1x	$1.00
2 oz.	1 2/8x	1.25
3 oz.	1 3/8x	1.35
4 oz.	1 4/8x	1.50
6 oz.	1 6/8x	1.75
8 oz.	1 8/8x	2.00
16 oz.	1 16/8x	3.00

Any value can be given to x but for sake of illustration column 3 shows results if $1.00 be taken as the value of x. Note that the numerator in the fraction in the coefficient of x is the same as the number of ounces. We believe that the number 8, arbitrarily chosen for the denominator of the fraction, yields the most equitable results. Some may prefer results obtained by using a larger or smaller number for the denominator. A trial will show these results and demonstrate which is the most desirable in the individual case. These results constitute the minimum charge and rule when the cost (on a 40% profit basis) does not exceed 50% of the minimum charge. If it exceeds 50%, add to such cost 50% of the minimum charge. If it exceeds 100%[3] then add to such cost 25% of the minimum charge.

In hand-made pills, capsules and powders, we have three factors, x, the overhead charge, which must be individually decided upon, a figure representing a charge for labor, and a minimum charge for material for each capsule. Below is a table in which for sake of illustration 75 is the value given to x. The first number in the parenthesis is the labor charge, the second number the minimum material charge. Y in the formula represents the number of capsules, pills or powders in the prescription. When cost of material on 40% profit basis exceeds the minimum allowed, substitute such cost for the minimum in the formula.

Formula up to 50

$$x + (1 + 2)y$$

Formula up to 100

$$x + (1 + 1)y$$

Formula above 100

$$x + \left(1 + \frac{100}{z}\right)z$$

For suppositories 6 times the labor charge.

Physicians discount 25% gross; charity discounts 10% gross. Add 25 cents as fee to all narcotic prescriptions. Above prices are based on a maximum of 15 minutes' time. Additional charges may be computed for each 15-minute period at $0.50 per period.

In view of the diverse demands of the clients of stores in different sections of the country and even in different sections of the same city, the writer does not believe that uniformity of prices of the same prescription is an ideal to be sought for.

The price should vary with the quality of service given in different stores; it should reflect accurately, and parallel closely, variation in cost of material and quantity of service rendered as indicated by number of doses supplied. These are the factors common to all prescriptions and they are the ones this scheme endeavors to take into account.

For Special Substances.

	10%.	15%.	25%.
1 oz.	50	75	85
2 oz.	95	110	160
3 oz.	135	150	235
4 oz.	175	200	310

Note 1.—Tables for special substances can be prepared as for example percentage solutions of Argyrol, Silvol, etc. The accompanying table illustrates such a one worked out on the cost basis of the table in the body of the list.

See Note 2.

	A.	B.
1	62	75
2	95	110
3	125	150
4	160	190
6	170	210
8	185	225
12	250	300
16	350	375
32	500	600

Note 2.—The same inconsistency occurs at this point of change of rate, and continues until the cost reaches 125% of the schedule, as was mentioned under a similar change of rate in the first group. The accompanying table corrects this: column A represents 125% of the schedule price for the several volumes and column B represents the minimum charge for volumes at that point. The prices in column B rule on all costs between the point of change of rate (100%) and 125%. After that the new rate is in force.

See Note 3.

	A.	B.
1	125	150
2	155	190
3	165	200
4	190	225
6	225	265
8	250	300
12	310	375
16	500	600

Note 3.—The same correction is necessary in the ointment table as in that of liquids. Here column A represents 125% of the minimum charge for the quantities given and column B represents the minimum charge at that point. This price rules on all costs between 100% and 125% as it does in liquids. At 125% the new rate obtains.

A RESEARCH IN ADVERTISING.*

BY SAMUEL M. WANAMAKER.

The original paper of this title was a thesis, presented to the Faculty of the Philadelphia College of Pharmacy and Science. I was invited by the Chairman to read it at this meeting but it is too long and I have therefore decided to give an abstract of it.

The subject for the paper was suggested to Dean Charles H. LaWall by Mr. Bruce Philip, of California, and he in turn suggested it to me.

The first part of the paper contains five separate sections and a brief description of each will be given.

* Read before the Section on Commercial Interests, A. PH. A., Philadelphia meeting, 1926.