

which are soluble should be dispensed as clearly and as neatly as possible, without this paster, "SHAKE WELL BEFORE USING."

#### ABSTRACT OF DISCUSSION.

Discussions followed each prescription, and are here briefly reported in abstract, whenever there were expressed differences of opinion; otherwise the comments of the author, following the prescriptions, only are given.

##### PRESCRIPTION NO 1.

MR. LASCOFF: The castor oil was dissolved in 4 fluidounces of alcohol, the tincture of cantharides was added and then the oil of cade; lastly 3 fluidounces of water, containing a small amount of fluidextract of quillaja, was added. The result was a homogeneous mixture, whereas mixing the ingredients in the order given in the prescription would have resulted in a preparation wherein the oil of cade would rise to the top.

MR. RAUBENHEIMER: Quillaja in a preparation for internal use is objectionable and harmful; this does not apply in a preparation of this kind.

In Prescription No. 2, only the salt formed by the addition of citric acid was discussed.

In Prescription 3, the harmful effects of quillaja were considered, but the amount added was conceded to be without such effects.

In Prescription 5, the amounts of alcohol and glycerin necessary to maintain solution were considered. It was also brought out that sugar was sometimes precipitated. Ivor Griffith stated that glucose in 25% alcohol will hold terpin hydrate in solution.

Prescription 12 brought out that considerable experimentation is necessary to evolve a scientific method of preparation. This was admitted by the author, and also that such service should receive compensation.

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## THE BUSINESS POSSIBILITIES OF MANUFACTURING IN THE RETAIL DRUG STORE.\*

BY GEORGE M. BERINGER, JR.

In the matter of manufacturing, the Retail Druggists of the United States might be divided into two classes: those who prefer to devote all their energies to salesmanship, and, hence, make practically nothing; and those who make a few of the commoner preparations and specialties, but draw the line at certain preparations which tradition, rather than fact, says can be made more cheaply by the large manufacturer. Those of the first class buy Brown Mixture, Chalk Mixture, Syrup of Wild Cherry and Solution of Magnesium Citrate. They even buy five and ten cent packages of Epsom Salt and sell them again—as far as the contents go—sight unseen! These are the men who continually decry the advancements in Pharmacy, who would turn our colleges into mere schools of salesmanship, yet they, themselves, violate the first principle of modern salesmanship in that they know nothing about the goods they sell. The second class, I fear, are less numerous than the first. They are surely, fundamentally, better merchants than their pseudo-successful brethren of the first class, and would probably be more successful were they but fully alive to the business possibilities that their manufacturing offered.

The trouble is, that the average druggist of all classes thinks only of his profit as the difference between the cost and the selling price. If business were so simple, we would all be merchant princes. However, there are a number of factors which

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\* Read before Section on Commercial Interests, A. Ph. A., New York meeting, 1919.

make the problem more complex. It is my purpose to bring before you a few of the factors that are only too often ignored.

Suppose that A and B, competitors, have each an "own name preparation" of the same type prepared for them by the same manufacturing house. Of course, that house offers a selection of designs for the packages, so that each preparation may appear somewhat different externally. A customer, who happens to purchase packages of the article from each, realizes that the contents are the same. The name of neither competitor on that article has given him any advantage. But, let us further suppose that B has manufactured the article himself and has worked certain ideas of his own into the preparation proper, giving it a distinctive character. The chances are that the customer who divides his purchases between A and B finds that distinctive characteristic of B's product pleasing or helpful to him. B has won the first point in the game of competition. He has established individuality, and individuality means "good will," and "good will" means possibly a hundred thousand dollar business for B against a ten thousand dollar business for A, though both may have been of equal professional ability at the start.

Now, I know some one is waiting to say, "I'll wager B's product cost him more to manufacture, on his small scale, than A's cost him to buy." Let us grant, for the sake of argument, that this is true. Say A paid fifteen cents for his article and sold it for twenty cents. Say B produced his preparation at a cost of seventeen cents and sold it for twenty-five cents. A's gross profit was, in round figures, 33 percent, B's, 47 percent. But, if B fully appreciated the value of his improvement of the product, and had the proper business acumen, he probably asked thirty or thirty-five cents for his article and got away with it. You see, there is some reason back of that hundred thousand dollar business. The "cashing in" on that "good will," anyhow.

The average man looks upon the immense plant of the manufacturer with its vast accumulation of special machinery, its expensive research workers and its brilliant sales force and immediately develops a case of "cold feet," in so far as manufacturing for himself is concerned. He forgets that the brilliant sales force does not have to figure in the overhead he carries upon his small operation. He forgets that the expensive research workers, with all respect for their contributions to the advancement of science, are as much a part of the advertising department as an aid to the manufacturing department of such concerns, and that he can be his own research worker with a versatility not equalled by these specialists. He forgets that his ingenuity and skill can overcome, in many cases, the vast accumulation of special machinery, and that an immense plant means an immense "up-keep."

Many stores have certain hours of the day during which very little business is transacted. In this time the employees have but few tasks. This waiting time might be employed in manufacturing with actual saving of overhead expense. I am not advocating "slave driving." It is a well-established fact that machinery will deteriorate most rapidly when lying idle. The same is true, in a way, of human machinery, and druggists' assistants employed pleasantly, sanely but continuously will be more efficient in every way than those allowed to stand idle during slack time. There is another point that here suggests itself. No salesman can sell

goods with a "snap" equal to that of the man who makes them and, therefore, knows all about their intrinsic value.

The advantage of quality should, and often does, rest with the product of the small retail manufacturer. The workman in the large laboratory, to whom the real manufacturing is intrusted, is usually a mere laborer in whose eyes the work is only mechanical routine. The workman in the store is the proprietor, and his clerks men of better training and intelligence and with a more active interest in the work. As an instance of this, I have seen fluidextracts manufactured by a retailer which were far superior in brilliance, aroma and body to many turned out by the large manufacturer with his advantage of stills and vacuum apparatus. That this advantage may be capitalized has already been pointed out.

Certain classes of preparations, such as coated tablets and pills, which require expensive machinery; fluidextracts, in general, which require the recovery of quantities of alcohol; and biologics and alkaloidal extracts, which require expensive control and assay processes, are, in the main, beyond the reach of the small manufacturer to produce. Yet, even here, are exceptions.

While coated tablets and pills are practically impossible of production, economically, on a small scale, the same is not true of plain compressed tablets, tablet triturates and hypodermatic tablets. While the cost of these on a small scale would be somewhat higher, such manufacture permits of supplying the local demand with products of superior quality as regards solubility and disintegration, since it is not necessary to make the tablets hard enough to withstand the extra strain of distant transportation. Another factor in regard to tablets is the ability of the small manufacturer to supply limited quantities of the special formulas for which there is always a demand among his local physicians. The cost of the necessary utensils need not be very great. A first-class, hand-power tablet compressing machine, with a reasonably complete assortment of dies and punches, can be secured for less than fifty dollars. A set of hard rubber molds for tablet triturates and hypodermatic tablets can be secured for from five to ten dollars, depending on the number of molding plates desired in each set. In any case, this tablet equipment should be part of every complete prescription department. I might observe that the man who makes a line of tablets is getting a better knowledge of the physical properties of drugs than can be had in any other way.

Among fluidextracts, there is one which no self-respecting druggist should buy, that is, Fluidextract Cascara. In its manufacture there is no waste of alcohol and the process is simple. The cost of production figures about as follows:

	Per pint.		Per gallon
Ground Cascara bark..... 1 lb.	.30	8 lbs.	2.40
Alcohol..... 4 fluidounces	.20	1 qt.	1.50
Time and fuel.....	.50		1.25
Container.....	.10		.25
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	\$1.10		\$5.40

Actual cost will in most cases average a little under these figures. Manufacturers quote from \$1.35 to \$1.80 per pint. The manufacturer quoting the lower figure per pint, names \$6.50 as his best price per gallon. It might also be mentioned that Fluidextract Licorice is in the same class from a manufacturing standpoint.

The retail druggist who manufactures at least some portion of his own preparations has one advantage which is rarely ever considered, that is, the ability to meet emergencies. During the recent influenza epidemic, both manufacturers and wholesalers in many sections of the country were from two to three weeks behind in the filling of orders. Common preparations like Spirit of Nitrous Ether were almost unobtainable. I know of one druggist who made his own ethyl nitrite when he found that the market was bare of that substance. It would not have paid him under ordinary circumstances, but the needs of humanity at that time were paramount to the expense of production. Then too, one can imagine the prestige he gained when his customers told others, "If you can't get it anywhere else, you can get it at 'So & So's.'" The druggist who manufactures, even in a small way, has apparatus and raw material on hand that, otherwise, he would not have, and, when the need arises, can turn them to account. Thereby, he not only reaps a just financial reward, but receives the satisfaction of having helped his fellow men.

Business is a complex problem, never more so than at present. A multitude of little considered factors contribute to the success or failure of those engaged in it. We are only too apt to say that because two and two make four we have found the correct answer to the problem. However, if another figure has been omitted from the column, it avails us nothing that our answer was, in so far as it went, correct.

#### ABSTRACT OF DISCUSSION.

JACOB DINER: Mr. Beringer's paper is very timely and apropos. When we put something of ourselves into a thing we are more enthusiastic about it; we can speak more intelligently on the subject, and, possibly, more readily make a sale. There are, however, a number of preparations which the retailer cannot successfully make—and when I say successfully, I mean both from the commercial and the therapeutic point of view. Let me cite instances. The retailer who has been properly trained may be able to assay a digitalis tincture and an opium preparation, but at the present day the cost of such an assay is almost prohibitive. If he does not assay his digitalis tincture or tincture of opium, etc., it is his duty to purchase it from a reliable manufacturer; his purchases must not be dictated by price but by quality.

The high cost of alcohol may also prohibit the manufacture of certain preparations made from specially denatured alcohol. Take, for instance, tincture of iodine. The duty devolves upon the pharmacist to assay the preparation, and having done that, he can sell that preparation to better advantage. It is up to the retailer to use his judgment as to the preparations he should manufacture or purchase, both from the professional and the commercial point of view.

OTTO RAUBENHEIMER: The point I wish to make is that the retail pharmacist should not only make his own preparations, but he should let his customers know he does so. Let me give you a concrete illustration. I have a five-gallon apparatus in my store window, day and night, from the first of January to the last of December, in which I make a bed-bug preparation. It attracts the attention of passers-by and sells the preparation; customers come for it from quite a distance.

Customers have confidence in my household remedies because they know I make them; it is a selling argument. The strong point is that the pharmacist knows what he puts into the preparation he sells, if he manufactures it.

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