Test the following:

(a) Potassium Iodide for Iodate.
(b) Potassium Citrate for Tartrate.

(a) Bismuth Subnitrate for presence of Carbonate and insoluble foreign salts.
(b) Potassium Bromide for Bromate.

(a) Tannic Acid for Dextrose and Resins.
(b) Menthol for presence of Thymol.

(a) Borax for presence of Carbonate or Bicarbonate.
(b) Cream of Tartar for presence of Starch or other insoluble matter.

The results of the practical examinations, that is, the work turned out by the candidates, is very gratifying and proves that they are highly proficient in this branch of their study.

If time permitted I should like to dwell in more detail upon other factors tending to prove the ability of the pharmacist, such as a more detailed account of the college courses and a more thorough analysis of the State Board of Pharmacy examinations, and I trust that in the discussion which is to follow, such points as I may have omitted, or others which I may have treated lightly, will receive attention

In closing, I say without hesitation that the up-to-date pharmacist possesses a rare degree of ability, for which he is not commonly given credit, except by the few, and I trust that the practicing physician will more often give these pharmacists an opportunity to display and prove their abilities.

SOME OF THE GOOD THINGS OF THE NATIONAL FORMULARY.*

LOUIS SAALBACH, PHARM. D.

The N. F. as a handbook is not properly appreciated by the average pharmacist. It is full of good things from a pharmaceutical, therapeutical and commercial standpoint. Within its pages may be found formulas which might pave the way for future fortunes, if one was inclined to devote his life to the chase of the elusive dollar,—formulas which will produce preparations whose prototypes now grace the shelves of the average drugstore in endless variety, with fanciful trade names and literature descanting upon the virtues, both real and imaginary, which the component parts of the mixture are supposed to possess. And why should it be necessary to pay one's money into the already overloaded coffers of the pharmaceutical houses? Is it not better pharmacy to produce a preparation which we know has the substances, or the active constituents which are implied by the name under which it is known? In every instance such preparations may

*Read before the Pittsburgh Branch.

be produced by even an average pharmacist at a price considerably lower than that of those whose merits are made known to the physician by that bugbear of pharmacy, the "detail man." Do a little detailing yourselves, and you will be surprised to see how rapidly a physician will be converted to ethical preparations.

To name all of the preparations of the N. F. which might be designated as good things would require the majority of the titles in the book. It is not reasonable to suppose that all preparations can be made to go in every locality. Some stores dispense large quantities of emulsions, elixirs, etc., while in other places their sale is in very limited quantities only; but in every instance some formula or formulas may be found which would prove veritable gold mines if properly exploited.

The writer knows of one store in which a single quart of Alkaline Antiseptic N. F. was prepared and shown to a number of physicians who had been in the habit of prescribing an overpriced proprietary article having essentially the same composition, and in every instance they have been converted to the use of the ethical preparation, the one of known composition which produced the results which one might expect from such a solution of antiseptic agents. The pharmacist here referred to now makes this preparation several gallons at a time, sells it at a price much lower than he would be compelled to ask for the overpriced proprietary, the physician is satisfied, as is also the patient, and a larger profit is found in the cash register of the pharmacist.

The detail man, when he sees a physician, usually dwells long on the beauty of his specialty. No doubt a "thing of beauty is a joy forever," and when you begin as a pharmacist to practise your real profession, instead of devoting most of your attention to selling patent medicines at cut prices, see that your preparation will have a beauty that will appeal to both physician and laity. This, of course, requires a knowledge of the technique of pharmacy; filtration, and clarification by proper means, for without beauty as one of the attributes of your preparations you cannot hope to compete successfully with those who have made the study of beauty an art in itself.

The "Petrox line" of the N. F. forms a class of preparations which can be made into profitable specialties. Petrolatum Saponatum Liquidum, as the base of these preparations is designated, is a clear pale yellow transparent solution of liquid petrolatum in ammonia soap (oleo acid and spirit of ammonia). It is a solvent for iodine, methyl salicylate, ichthyol, guaiacol and many other substances. It has the peculiar property of forming a permanent emulsion with water, a fact which is made use of in the manufacture of a well known corn cure. In the proprietary field we find its prototype under the title "Vasogen," which is the name under which the article made on the other side of the Atlantic is marketed, and under various other titles when produced by the American manufacturers.

The imported article with most of its medications costs about thirty (30) cents an ounce, while the American manufacturers content themselves with a price of about eleven (11) cents an ounce. Those containing various proportions of iodine are the most expensive to produce; and the one containing 10 per cent. of iodine can be made by the pharmacist who buys his goods in ordinary jobbing quantities, for about sixty (60) cents a pound, which is less than four (4) cents an ounce.

Other medications and those containing iodine in lesser quantities can be made correspondingly cheaper. Quite a saving, and a saving which is accomplished at the expense of a little pharmaceutical skill! And it will not take long to convince the physician of the wisdom of prescribing the N. F. preparation on account of the monetary saving to his patient, if for no other reason.

The elixirs are too numerous to mention. Suffice it to say that not less than 50 per cent. of a saving is a low estimate on those elixirs which are used to a comparatively large extent. Among these may be mentioned Elixir of Terpin Hydrate and Codeine, and Elixir Terpin Hydrate with Heroin. Even at the present high price of the alkaloids which enter into these preparations they can be made for about fifty (50) cents a pint for the former and a very little more for the latter. While to buy them at the present time under the label of any house that may be considered reliable will cost over a dollar a pint.

The Elixir of Glycerphosphates of Lime and Soda costs about eighty (80 cents a pint to buy and less than half that to make.

Oil of Mullein is a commercial article sold at a ridiculously high price. The N. F. does not mention this preparation specifically, but it does give a general formula for infused oils. Oil of mullein costs to buy forty-five (45) cents an ounce; it can be produced for about that price per pound.

Among the syrups may be mentioned Compound Syrup of White Pine. This can usually be purchased cheaper than it can be made; but such articles when compared with those of your own manufacture usually suffer by such comparison. The cheaper varieties are frequently made with molasses and readily ferment. It might be well to mention in passing, that when you compare cost of manufacture, with published quotations, one must always choose the highest priced one as that is the one most liable to be up to standard. Low priced pharmaceuticals, especially when priced lower than the cost at which they can be produced by the pharmacist, should always be looked upon with suspicion, as you never get more than you pay for; frequently much less.

The Syrup of Hypophosphite of Soda of a well-known make, crystal in its transparency, costs eighty (80) cents a pint; it can be made by the pharmacist for about fifteen (15) cents a pint plus a little time and care in the making. He can produce it just as transparent, just as colorless, if he makes his syrup by cold percolation, using pure sugar or rock candy and distilled water.

Milk of Magnesia when purchased under its trade name, costs about thirty-five (35) cents for a ten-ounce bottle, or when purchased in three-pine bottles, about forty-two (42) cents a pint, while it can be made for about three (3) cents a pint. How is that for a money maker?

Among the dry substances may be mentioned Caffeine and Sodium Benzoate and Caffeine and Sodium Salicylate. Contrary to popular opinion these are not definite chemical substances, but are mixtures of caffein with the respective sodium salts, intimately mixed and made into a paste with alcohol, then dried and pulverized. Caffeine is not very soluble in water, but is soluble in solutions of various substances. These compounds (?) are soluble. They are quoted at forty (40) and forty-five (45) cents an ounce. If the pharmacist buys his chemicals only in ounce lots, these can be made for twenty-two (22) and twenty-three (23) cents

an ounce, and if your chemicals are purchased by the pound they can be produced for less than fifteen (15) cents an ounce.

The topic is not exhausted, the most popular ones have not even been mentioned, but a sufficient number have probably been mentioned to prove that the N. F. is a vast storehouse of "Good Things."

WHY SOME DRUGGISTS DON'T MAKE MORE MONEY.*

HARRY B. MASON,
Editor of the *Bulletin of Pharmacy.*

In an address which I have recently prepared at the request of another association, but which has not yet been delivered. I have shown in detail how strikingly at variance druggists are in the incomes derived from their stores. I have presented the actual facts about twenty-five druggists who are scattered in different sections, and who therefore represent the average conditions as they are found over the country. The percentage expense of these men run from 18 to 35! Their percentage of gross profit runs from 31 to 51! Often one man realizes a total income as large as another whose volume of business is nearly twice as great!

Now why do these discrepancies exist? Why does it cost some men so much more than it does others to do business? Why do some men realize a profit so much less than others? Why does one druggist make so much more than his neighbor on a business of exactly the same size?

The answer to all these questions is simple. Locality and environment have something to do with the problem, it is true, but in the last analysis, and in the great majority of instances, the fundamental reason is that some druggists are poor business men—that's all. They don't study the game. They haven't mastered the rules. They aren't skillful in playing their cards, and, worse yet, they make one blunder after another without ever knowing it.

Now, what are some of these blunders?

1. *They don't keep business accounts.* This is the day of science in commercial operations, when every large business house, in whatever line of trade, is making a close study of business economics, and yet many druggists are nevertheless following the good old-fashioned method, or lack of method, of spending what accumulates in the bank account and fancying that it represents net profits. Hundreds of such men have discovered when it was too late that they were eating up their principal without knowing it, and that accumulated dead stock, decreasing inventories, and bad book accounts had cut into their imagined profits so far as almost to destroy them entirely. The sheriff has had to come along and close them up before they tumble to the situation. A druggist who does not keep

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* Address, delivered by invitation, before the Chicago Branch of the American Pharmaceutical Association, May 21, 1912.