

AN APPEAL TO THE RETAIL DRUGGIST TO TAKE A GREATER
INTEREST IN THE MANUFACTURE OF U. S. P. AND N. F.
PREPARATIONS.*

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This is written from the standpoint of the retail druggist in the smaller towns, but I am sure conditions which prevail here, in a measure, correspond to those in the larger stores in the cities. In this day of commercialized pharmacy one is necessarily forced to keep pretty well stocked with pharmaceuticals of the various manufacturing houses, but with a little extra effort, judicious advertising and sampling among our local physicians, this condition can be largely overcome by the manufacture of many U. S. P. and N. F. preparations which are prescribed every day, and which can be very easily made, even in a drug store where conditions are such that there is no laboratory in connection or where the druggist has no great amount of equipment for this work.

We often hear the cry from the old-time druggist that, times have changed so radically there is not so much money in the drug business as twenty years ago. That, perhaps, from their viewpoint, is in a measure true. But should we as a profession be content to sit idly by and listen to the croakings of these pessimists, and at the same time allow the large manufacturing concerns to reap the profits which are rightly ours, or strive to go forward putting our best efforts into action in an endeavor to make these things which should be made in our establishments?

I have found in my experience that many of these preparations which are prescribed daily and which are as staple as flour, can not only be made more cheaply than the manufacturer will sell them, but in many cases they are more elegant preparations. I know druggists who prefer to purchase from a wholesaler such simple things as aromatic elixir rather than to take the time to make it. Think of such a sad state of affairs. For the advancement of the profession of pharmacy a person can not afford to let these things pass. From my way of thinking the druggist who says he can buy the above mentioned elixir, and many other preparations, for that matter, as cheaply as he can make them, and also that he does not have the time for doing so, is in the same deplorable condition as the farmer who would contend, it would be better financially for him to allow the other fellow to raise his cotton, feedstuff, etc.

I do not charge this class of druggists with ignorance, but to be as lenient as possible they are woefully indifferent to the opportunities presented them every day. It is an established fact that the lines of least resistance are more easily followed, and when we once get in a rut it is pretty difficult to overcome the compelling desire to remain in it. The chief arguments these men use against making these preparations are the element of time, inability to successfully and correctly make them, and the lack of coöperation on the part of the physician who prefers to have some old established manufacturing concern compound them.

First, take the element of time. In the average small town drug store time

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very frequently hangs very heavily upon us—that is, those who do not desire to sit all day and discuss the faults of our government, etc.—and we could not only add financially to our business, but at the same time store up further information to our little stock of pharmaceutical knowledge. Not infrequently the clerk and proprietor both have ample time to delve into the Pharmacopoeia and the National Formulary and work up these excellent formulae. Then again the proprietor is often heard to make the remark that when his clerk's time is taken into consideration along with the price of the ingredients entering into these preparations, the finished products will cost as much as the jobber sells them for. And at the same time if we should endeavor to convince that same misguided individual that he should carry his prescriptions to his competitor across the street to be filled, he would in all probability take us for a mental weakling. There can be no element of time to be considered when a clerk is paid a stipulated monthly salary for his work, and where he necessarily has many hours of idle time that should be spent to advantage. And we all know the small druggist can not afford to employ a pharmacist for prescription work only. Consequently, aside from the prescription end of the business, he occupies every position from porter to proprietor, and still has quite an abundance of time which could be used profitably. But should this time be taken into consideration from a financial viewpoint, these preparations could still be made more cheaply than they could be purchased from the wholesaler. I will quote only a few of the ones which I make and which I am sure is true of most U. S. P. and N. F. preparations: Elixir Digestivum Compositum N. F. (III), Elixir Ferri, Quininae et Strychninae N. F., Unguentum Resorcinolis Compositum N. F., Unguentum Zinci Oxidi U. S. P., Liquor Antisepticus Alkalinus N. F., Liquor Antisepticus N. F. and Liquor Cresolis Compositus U. S. P. It is hardly necessary to quote figures on the probable cost of these preparations, but by consulting the formulae, getting the prices of the various constituents and comparing the cost of the finished product with that of the manufacturer it can be seen at once the saving to be made.

The argument that a druggist cannot make them is about the most deplorable idea, to my mind, that a person could entertain. I would not want to charge these men with such a gross degree of ignorance, but if this is true, and we will accept the statement from them, then these same druggists have admitted their inability to successfully compound a physician's prescription. If he has the qualifications to fill correctly a prescription, he certainly can take the Pharmacopoeia and with the explicit directions given therein make the various preparations which are outlined.

I have found the physicians in my locality always eager to coöperate with the druggists in prescribing preparations of which they know something regarding the constituents. Very few of them would insist on a certain manufacturer's Elixir Iron, Quinine and Strychnine, etc., when the careful and discerning pharmacist would take the pains to show them the formulae for these preparations which he makes. And to further gain their confidence, take them with you behind your prescription case or in your laboratory if you are so equipped, and show them these things in the making. Let them see, not only the U. S. P. and N. F. formulae which you are using, but insist that they see the ingredients incorporated. It is, in a measure, true as many claim, that the physician does not coöperate with

the druggist as he should, but before we too severely criticize him we, in justice to his profession, must admit that as a profession we do not bring ourselves into as close relationship with him as we should. If we would take more interest in the manufacture of these preparations of the U. S. P. and N. F., then sample the local physician as do the large manufacturing concerns and otherwise keep these products before them, I have no doubt but that the pharmacist would come into his own.

ESSENTIAL OILS AND IMMUNITY.

From very ancient times various aromatic and pungent substances have been regarded as possessing prophylactic powers in some measure. It is curiously interesting, therefore, to learn that modern bacteriologists have discovered that in certain cases of infectious disease some of the essential oils such as those of cinnamon, cloves, mustard, garlic, thyme, and marjoram, not only possess bactericidal power, but may even be made to confer immunity when injected like serums. Certain investigations of this highly complex subject recently made by Mr. F. d'Herelle of the Pasteur Institute are reported in the *Bibliothèque Universelle* (Lausanne) for June. He said:

"There is a bacillus belonging to the group of the paratyphics, the *bacillus typhi murium*, which is naturally pathogenic for white mice. Many attempts have been made to render it inoffensive for these little creatures by vaccinating them with a product containing dead bacilli; but the project has always failed though attacked in the most various fashion.

"Mr. d'Herelle then asked himself whether this failure was not due to the manner in which the bacilli had been killed, and, therefore, sought some new method. In the course of his investigations it occurred to him to kill the bacilli meant to serve as a vaccine by means of essences (essential oils), as had been done by Mr. E. Roux. This process has the advantage, according to the eminent bacteriologist, of not altering the albuminoid matters and the diastases contained in the substance of the microbes. No attempt had hitherto been made to prepare vaccines with bacilli killed by essences. Mr. d'Herelle found by experiment that vaccines thus prepared from the essences of cinnamon, garlic, thyme, marjoram, cloves, and mustard were active in certain conditions.

"Thus a white mouse into which is injected a vaccine containing from 500,000 to 10,000,000 corpses of bacilli slain by the essence of mustard is immunized against mortal, and even very 'super-mortal' doses of the living bacilli. But these limits must be maintained with great care in order to obtain immunity, and care must be taken to give a stronger dose to a young mouse than to an adult. For if the dose of 10,000,000 be surpassed, the immunity obtained is very feeble, with little resisting power, and the more the dose is surpassed the weaker the immunity, apparently. On the other hand, the dose must consist of not less than half a million, thus a dose of 150,000 bacilli confers no immunity. It is also useless to try to obtain immunity with a number of successive doses, superior to 10,000,000; the result is *nil*, as if one had done nothing. To resume, the essence of mustard gives a very active vaccine, in this particular case, against hundreds of mortal doses of virus, provided the immunizing doses are confined within the given limits."