

Section on Practical Pharmacy and Dispensing

Papers Presented at the Sixty-First Annual Convention

PHYSICIANS AND PRESCRIPTION WRITING.

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In discussing this question, I shall confine my remarks to the prescriptions found in drug stores, not those models selected from text-books. I will not consider those orders for medicines which originated years ago, were used as formulas, and since, with a little elaboration and alteration, have attained the dignity of prescriptions.

Considering a prescription as an order for drugs or medicines to be compounded and dispensed, and the order to have been written by one who understands the practice of medicine, we would have in mind an order conforming in most its details, to a model prescription. I regret that such prescriptions are the exception, though, as time goes on, the number of more uniform and perfect prescriptions shows an encouraging increase.

The errors I shall criticise are the ones most commonly made, viewed from a pharmacist's standpoint. There are many others viewed from the therapist's standpoint that justly deserve criticism, though it might not be considered within my province to present the same.

Many prescriptions are offered to the dispenser which bear no heading or name, to give the pharmacist a clew as to sex, age or for which one of the family the medicine is intended. We understand that false ethics have rather decreed that those suffering from venereal diseases should not have their ailments advertised to the world, by placing their names upon prescriptions, but I wish to state that the druggists merit just as much confidence, in this respect, as the physicians. Dispensary experience has taught me to insist upon the name and the age of the patient being given, for, if quite young or very old, we absolutely need the latter, particularly, in checking dosage.

The next point I wish to take up is the inscription. In school and in the best text-books we are taught, that a model prescription should contain,—a base, an adjuvant, a corrective and a vehicle or diluent, though a prescription *may consist* of but one ingredient. In teaching this subject to students I try to impress the importance of keeping in mind this model, and deviations from it can readily be made. We regret that so many of the prescriptions to-day, show absolutely no earmarks of the prescriber having ever been taught in such a manner. Too many prescriptions show a tendency on the part of the prescriber to "shot-gun" the disease, not by ordering twelve or more ingredients for the prescription, but to provide several drugs for emergencies which might arise during the prognosis

of the disease. The drugs prescribed frequently show a lack of knowledge as to their action in normal or pathological conditions, whether secondary or primary in their action.

As one old physician expressed it, he preferred to always shoot with a rifle and to get what he shot at, therefore he gave calomel in 4 to 10 grain doses with soda only. After all, our old doctor was not far wrong and he usually obtained results.

I submit to you an example which will illustrate another point I wish to make,—the question of solubility. A prescription is frequently written, by a number of physicians, calling for sodium bi-carbonate, sodium benzoate and benzoic acid, in aqueous solution. Sometimes hexamethylenimine replaces the sodium salt. When complaint was made of the incomplete solution of the chemicals and the explanation was offered that the sodium benzoate and the benzoic acid were not in order, retort was made that the case demanded them so they were prescribed. The prescriber might think that "shot" was required, yet complete solution could not be effected unless there was chemical re-action. Another instance brought to my attention was the prescribing of creostal with acacia and cinnamon water to make an emulsion. In whatever manner this prescription was prepared, it would turn pink upon standing, although the druggist could have avoided the color-trouble by gently warming the creostal before emulsifying, or by adding a little expressed oil of almonds. The physician refused to allow the patient to take the medicine, even after seeing it compounded. I might add that the physician was well-educated, and an instructor in the practice of medicine in a medical college. The pink color lost the druggist that physician's business, and similar color changes often make trouble owing to the ignorance of the prescriber. I would suggest that a "sticker" or small label, be placed upon such preparations as are liable to color-changes; these stating that any color-change occurring in the preparation will not alter its medical effects.

The days of "shot-gun" prescriptions are not over, as many are written which contain two or more proprietaries, these, in turn, having from three to six ingredients giving a total of ten or more drugs and some of them making most unsightly preparations.

The so-called Latin of our prescriptions cannot be called Latin, as the tendency is to abbreviate everything that can be Latinized, and when the Latin name is not at hand the English name is given. I fear this habit is due first, to a lack of knowledge of medical Latin, and secondly to indolence and carelessness. There is little or no excuse for scratching and blotting figures and signs. It has always been the belief, that if the practitioner could not read a prescription after it was "cold," that there is always one who can read it, the poor long-suffering druggist. To receive a well-written, Latinized prescription, is a source of inspiration and delight to any pharmacist, and he would be a knave indeed who would not send out the prescription with as much care and elegance as the order was written.

What are the remedies to be applied to correct some of these ills? After close observation of these particular evils, I unhesitatingly answer, *better and more thoro education both for the druggist and physician*. There is too great a difference between them in this respect, so much so that the physician with his more

complete education, looks down upon the druggist, with less education and his commercial business, as one who should not pretend to proffer advice nor be consulted on matters of prescription-writing or compounding. There are some great faults existing in our system of medical education and I shall attempt to point out one or two. In the schools to-day, prescription-reading is taught to pharmacy students, while prescription-writing is taught to "medics." The former is apt to hold to his instruction, for his mind is not diverted during his course in school. The "medic" is so extremely anxious to prescribe that he rapidly skims over the fundamentals of prescription-writing, beholding a vision of office-days, when he shall write prescriptions by the dozen. When he reaches his third and fourth year's work, he has completely forgotten the fundamentals, but has acquired a host of formulas. I regret to state that the instructors pay little attention whatever to set rules for formulating prescriptions, but write with dash and rapidity, abbreviating everything possible. There is a lack of exactness and precision, little or no attention paid to those small details which go to establish the fundamentals of prescription-writing. After all this, what opportunity has the druggist to gain the physician's confidence, that he may discuss a prescription with him, as to incompatibility, etc.?

I trust that the education of the future druggist will be so complete along this line, that he will have a more complete knowledge of pharmacology and therapeutics. Then, perhaps, it will be with all as with a physician friend, who writes or telephones his prescription "*secunden artum*" (!) for the subscription. When asked why he wrote thus, he replies that he has full confidence in his man, and believed that such a pharmacist could dispense a better prescription in every way, if given the due measure of liberty and confidence he deserved. It would appear then that if we can succeed in attracting the notice of medical instructors and direct their attention to this flaw in medical education, we would be in a position to expect better-written prescriptions. Give our pharmacists a more complete education that they may feel free to bring to the attention of practitioners the necessity of a better knowledge of the fundamentals of prescription-writing. Such a state of affairs would certainly be conducive to better and more friendly relations between druggist and doctor and we predict that the prescription-business will be increased proportionately.

DISCUSSION.

Doctor Fantus said he was sure he had profited by this paper, and voiced the same wish as the author of the paper, that more of the practicing physicians would get the advantage of proceedings of this kind. He pleaded for charity for the doctor, who wrote his prescriptions very often under the most trying circumstances—circumstances that tested the nerves of the strongest; when he had, perhaps, half a dozen crying men, women and children around him, with the patient in the most desperate condition. Under such circumstances, the physician was not likely to recall all the things that should go into a prescription, such as the writing of the patient's name, etc. He did not mean that the physician should not do these things as precisely, and with as much precaution, as the druggist should fill the prescription; he only meant to refer to the difficulties surrounding the physician at times. He, sometimes, said to his students that prescriptions should be a good deal like a bank-check, and that the same care should be exercised in writing them; in fact, that greater care should be taken. There was no question but that the highest degree of precaution should be used, in order that medicines might be administered scientifically, and be made more pleasant and efficient. He

wondered, sometimes, whether something might not be gained by making an investigation regarding the qualifications of applicants to practice medicine in prescription-writing, as an end to bettering the deplorable conditions that sometimes existed. If in order, he said he would like to move that a committee be appointed to make such investigation, and ascertain the extent to which prescription-writing was taught in the medical colleges of the country, and the extent to which medical examining-boards inquired into the thoroughness with which candidates had been prepared for prescription-writing.

This motion was seconded by Mr. Needham.

Mr. Fennell said he hoped this motion would not prevail, as he thought the pharmaceutical profession had its hands full in investigating the colleges and other teaching institutions of pharmacy of the country, and seeing that *they* did the proper thing, without invading the domain of the medical profession. He did not think it was within the province of this association of pharmacists to thus undertake an investigation of the medical profession.

Mr. Nitardy suggested that Doctor Fantus, who had so ably put this proposition before the Association, might, as a member of the medical profession, be appointed a committee of one on this subject. It could then be made with fairly good grace, and he could report to this Section at some future time, say, next year. Then the members would be in a position to act, provided the suggestion met the approval of Doctor Fantus, after thorough consideration.

Doctor Carter said that, as a practicing physician, he desired to support the recommendation made by Doctor Fantus. No one appreciated the inability of the average physician to write the prescription properly, more than the physician himself. He had been brought in contact with both juniors and seniors in this work, and realized this as one of the greatest weaknesses of the medical profession. He had been helped more by the daily assistance of pharmacists, who filled his prescriptions, than in any other way, and he thought a great work could be done by pharmacists in training the younger physicians in this respect. This was a particularly good field for labor with young physicians beginning the practice of their profession. It would do away with the prescribing of proprietary and special formulas, which was being constantly forced upon the younger physicians. As a practitioner of medicine, he said he would be glad to support the motion made by Doctor Fantus.

Mr. Mayo said that he, too, would like to support the motion made by Doctor Fantus. A physician was not a god, nor even a demi-god; he was a mortal man. He made errors, and the pharmacist made errors. This was entirely an impersonal thing, and he thought it was wholly within the province of the pharmacists of the country to ascertain why it was that they received prescriptions which were such a discredit to the medical profession. They would be doing the medical profession a great service if they could point out these defects in their medical curriculum.

Mr. Gordon wanted to know, if this committee was appointed and made report at the next meeting, what it was proposed to do with that report. Mr. Mayo sententiously replied, "We sha'n't suppress it. The disposition of that report will lie with the body to which it is made."

Mr. Alpers said that medical schools had devoted a great deal of attention to this work of prescription-writing in late years, and he believed that the young medical men of the day were competent to write prescriptions. There were a great many physicians in the country who were deficient in this respect—who had not been taught to write prescriptions when they went to school. All pharmacists knew this, and the physicians knew it, too. It was to be regretted that it was so. He personally knew it to be a fact that physicians sometimes hesitated to write prescriptions, because they were in doubt about the proper names of things, and they would go home and fix up the prescription themselves. The desired end could only be brought about by gradual improvement in both pharmaceutical and medical colleges. If the pharmacist complained that the physician did not understand Latin, he was liable to have the physician come back and say: "How many of you understand Latin?" It was necessary for both the medical and pharmaceutical colleges to first look into the entrance requirements. The science of chemistry and other allied sciences was international, and should have a nomenclature to be understood by all nations. The only language fitted for such work was the Latin language. Every physician, therefore, should be familiar with the Latin language

before he undertook the study of medicine, and the same thing applied to the pharmacist. He could see no objection to having knowledge as to whether a medical college in New York or California taught prescription-writing, but he could see no benefit to be derived from such an investigation, beyond the securing of a lot of statistics for publication, and, personally, he did not agree with this tendency. He believed the physician and pharmacist should be, from a scientific and professional standpoint, intimate friends in every respect. He had found it better policy not to allow a continuous enmity between the two professions. A great many physicians were willing to write prescriptions and trust to the pharmacists, who had the proper education, to correct their Latin. Very often the physician did not know the exact degree of solubility of certain articles, but he said "make a solution," and left it to the pharmacist, and it would be bad taste for the pharmacist to conclude from that, that the physician was a fool.

CALOMEL SUSPENSION.*

F. W. NITARDY.

The object of this paper is not, as you may assume from the title, to explain how to produce a calomel-suspension, even though this will be done incidentally, but it is written to relate an experience which may apply to other substances precipitated from solution, and may, in that capacity, prove of interest or value.

Some years ago, a "beauty doctor" came to me with the request to duplicate for her a certain liquid face powder. I had seen the analysis of this preparation published, and I had confirmed same by my own analysis. Its composition was calomel and water.

I found that the calomel on the market was too coarse to be used for this purpose, so I determined to make a finely divided calomel by precipitating same from a dilute solution. I had no difficulty in obtaining calomel of the desired fineness or even finer, but found that when this was mixed with water, the precipitate would invariably coalesce into a curd, and then rapidly settle out. I tried to overcome this tendency in various ways but failed.

The "beauty doctor" was not satisfied with this preparation and as she left the city soon afterwards, I paid no further attention to the mixture, a sample of which still remained in our laboratory.

Some weeks later, I thought I would add some mucilage of Acacia to the mixture and see how much of a mucilaginous substance would be necessary to prevent this curding of the precipitate. So, I added 5 percent, by volume, of mucilage acacia, and shook the mixture well. I found this was sufficient to bring about the desired result, possibly more than sufficient. To determine this, I allowed the mixture to stand until the calomel had settled out, decanted a portion of the supernatant liquid and replaced it with water. It still remained in the desired condition, so I repeated the operation and kept on repeating it, until all the mucilage had been washed out of the precipitate, which no longer coalesced in curds when suspended in water. In this condition it remained suspended in the water.

To illustrate this clearly to you, I have brought a sample of the suspension, half of which has been treated as above outlined.

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