

## Section on Pharmacopœias and Formularies

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### WHY PHYSICIANS DO NOT READ THE PHARMACOPŒIA?

H. L. CHAMBERS, M. D., UNIVERSITY OF KANSAS.

If we trace back the history of medicine and pharmacy as nearly to a focus as we can, we come to a condition substantially as follows: The learning that we should consider honorable, dignified, and worthy, was conserved in the priesthood. The medical profession was one of its potentialities. Pharmacy was to develop with and out of internal medicine, being for a long time of equal advancement with therapeutics. At the same time, i. e., when both medicine and pharmacy were unevolved possibilities of the priesthood, there was as now a body of alleged learning, but which contained a considerable proportion of error and even of fraud, and which we now call quackery. This mass of truth and error insofar as it came to affect medicine and pharmacy, was in the hands of two sets of people—the inorganic chemistry belonged to the alchemists, and the organic chemistry including the pharmacy, was exploited by the witches and sorcerers.

Please bear with me while I point out that this group of irregulars, who are always bigoted, and often intellectually dishonest, and morally perfidious, has, nevertheless done much to further the development of science, especially the practical applications of science. They are on this account to be considered in finding answers to the questions now under discussion.

As the evolution of general and special learning and practice progressed, the physician was evolved from the priest, the surgeon from the barber, and the chemist from the alchemist. Pharmacy seems to have developed in a general way about as fast as the demand for it arose. Naturally the honorable side of it was in the hands and under the direction of the physicians; the other side remained with the witches and other irregulars of various kinds. In the next phase, some physicians will be found specializing in the preparation of medicines, and some will have taken up this work who are not and never were physicians. This seems to be the origin of pharmacy as a distinct profession, and is, I believe, true, in every part of the world. As populations grew denser and conditions more stable, the consensus of opinion and practice of various groups of physicians and pharmacists would crystallize into sets of pretty definite rules of practice—and pharmacopœias were born. Naturally each country had its own, maybe even several—and they were influenced in this by social, racial, and political considerations, as well as by medical and pharmaceutical ones. You remember that our first Pharmacopœia in this country was published in 1778, for the use of an army hospital. The Massachusetts Medical Society in 1808 published

a Pharmacopœia after trying vainly for three years to get the cooperation of medical bodies in other states. There were other local efforts along the same lines, but no general one until Dr. Spalding started it in 1817. His scheme, you remember, was to divide the United States into four districts, make a convention of representatives from every medical institution in each, let each convention make a Pharmacopœia, and from these four district Pharmacopœias, to compile a national one.

With some modifications this plan was carried out and the first "U. S. P." was the result. If you note that the whole of it came from the medical profession, it seems reasonable to suppose that medical men would read it.

In the nine decades that have passed since that Pharmacopœia, there have been many changes that affect both it and the physician's relation to it. The physician has greatly modified and, we hope, improved his therapeutic armamentarium. Of the things that now interest him in a practical way, climatology, balneology, mechano—thermo—electro—and psycho—therapeutic measures cannot well be included in the Pharmacopœia. The inoculations, vaccinations, and most of the serum treatments must be negotiated without its guiding influence. Moreover, the modern physician is interested in keeping well by preventing disease, and the Pharmacopœia can give him no help here because it knows nothing about potable water, respirable air, nor edible milk. The surgeon's work is fundamentally mechanical so far as his therapy is concerned and the Pharmacopœia can furnish comparatively little that will supply his real needs. Suppose, however, that one desires to use some of the preparations mentioned in the Pharmacopœia. He relies on his local pharmacist or on the name of some pharmaceutical manufacturing house for assurance that the material is right. These men are far more expert and experienced chemists than he is, and his course in accepting their conclusions in such matters as more reliable than his own, seems fully justified.

Following this idea, he rarely puts any drug to a chemical test, since if there be any question about its purity, it is much easier and cheaper to throw it away and get some that is above suspicion.

Viewed in the light of these facts we should not expect physicians and surgeons to spend much time in the study of the Pharmacopœia, and I feel sure they do not.

Let us approach this question from another angle. Most of the physicians are engaged in practice, otherwise they do not interest us in this discussion. The practicing physician ought to be above all else a practical physician, and as such his primary interest must center in the means that promise most and best results. Being rather far-sighted he wants to know the cost in risk and actual damage now and hereafter of the results that he seeks. This means with reference to drugs that he is interested in their physiological action, and in their therapeutic and toxicologic possibilities. Since the Pharmacopœia knows nothing about any of these things, he does not turn to it when he needs help.

The desire on the part of chemists and others for authoritative standards and tests has had its influence on the development of the Pharmacopœia, tending to put it still further away from the practitioner. It has now become a large volume with formidable catalogues of tests, processes and assays, none of which

the physician expects to try out for the reason that he is more than willing to accept the conclusions, amounting to warranties, of his pharmacist.

Suppose one is in doubt about the compatibility of the ingredients of a proposed mixture. The Pharmacopœia has no direct information about chemical incompatibles and none at all about physiologic ones. Maybe he desires knowledge of the proper dose of a given drug for producing the action indicated, and wishes to know how often to repeat the dose to maintain such action. The Pharmacopœia gives only indefinite information about the size of dose required, and none at all about the frequency of repetition.

Summarizing the discussion thus far, we may say that the physician has two sufficient reasons for not reading the Pharmacopœia, viz.: First. He fully trusts the application of its information to the pharmacist without question. Second. The information he seeks for practical application by himself is not contained in the book.

There remains yet to be noticed the effect on the physician of the illegitimate branch of the science and I hope no one will be offended personally or professionally if I classify the Pharmacopœia with its direct associations as the present representative of what I have described as honorable, dignified, and worthy learning of the ancients, and classify the makers of pharmaceutical specialties, synthetics and the like as the modern representatives of what I have called the illegitimate branch of the science. No one may deny that these people know something or that they make important discoveries in medicine and pharmacy. So far back as we can trace them they have known some real science and have discovered actual and important truths.

They differ from other scientists in that they are primarily commercial rather than scientific, the end or aim of their effort is the accumulation of money rather than the discovery of truth, i. e., the scientists represented in the Pharmacopœia make money and leisure a combination for the discovery of truth, while the other fellows make of science and discovery a means for the attainment of wealth and ease. The latter being only commercial scientists, are not so careful in statements concerning their products or discoveries as are the other people, and since they nearly all claim some special skill, some secret process better than others know, or some new combination hitherto unknown, but now nicely worked out and patented or copyrighted by them and obtainable nowhere else—it is easy for them to make claims that will catch and hold the physician's interest. Even the most exaggerated claims find believers somewhere. The untried products of these commercial pharmacists are usually claimed to be new, and also said to possess distinct advantages over the old tried-out things discussed in the Pharmacopœia. The physician is thus led by his interest and his reading away from the Pharmacopœia and the preparations that it describes. Moreover, since these specialties, synthetics, etc., are sold at a much larger profit than the standard drugs, their promoters can afford to send skillful detail men about the country, persuading the medical men and sometimes even the pharmacists to prescribe and to stock them. This and what grows out of it also tends to keep the physician away from the Pharmacopœia.

When there is a revision, there are changes in the names of some preparations and changes in the compositions of some others that retain former

names. This would seem to be an urgent reason for reading the Pharmacopœia, but the manufacturers of specialties supply the profession with neat cards, stickers and the like showing in nicely tabulated form what these changes are and so keep the physician from feeling any need for it. Since these commercial pharmacists find it greatly to their financial advantage to keep the physician away from pharmacopœial preparations, it seems logical to suppose that they will continue to make every reasonable effort to keep him using secret and proprietary ones. There is nothing in this, tending to increase the popularity of the Pharmacopœia.

Are you ready for the condensed answers to the questions?

Q. Do the physicians read the Pharmacopœia?

A. They do not.

Q. Why do they not?

A. First. Those who prescribe standard drugs rely on their pharmacists to see that the preparations are up to the standard. Second. Those who dispense standard preparations, rely on their manufacturing pharmacists for assurance that the drugs are right. Third. Those who either prescribe or dispense specialties, novelties, etc., must rely on other sources than the Pharmacopœia for their information.

I append a little tabulated statement covering a small investigation made among my medical neighbors, and bearing somewhat on the questions I have tried to answer.

Number	Years in Practice	Where educated.	Other Degrees	Dispense or Prescribe	Read Pharmar.?	Why? Other Remarks
1	12	Kans. Cty Med. College, now University of Kas.	Ph. G.	Both	Yes	Been a pharmacist and taught it. It is not generally read because not taught in med. schools.
2	34	Mo. Med. College.		Both	Yes	Does not read much nor buy late editions. Physiological action of drugs desired.
3	30	Ky. School of Med.		Both	Yes	Not last one. Reference only. More practical matter desired.
4	20	Meharry Med. Col.		Both	No	Not necessary.
5	27	Bellevue, University of Vt., E. M. I.	A. B.	Both	No	Get needs supplied in Materia Medica.
6	22	Bellevue.	Ph. D. A. M.	Both	No	Get what is wanted from books on Internal Medicine.
7	13	University Med. College, Kan. Cty., Mo.		Disp.	No	Never felt need of it.
8	21	American Med. College, St. Louis.		Both	No	Contents not interesting, useful or practical to practitioners.
9	17	Kans. Cty. Med. Col. now Univ. of Kans.	M. S.	Both	No	Not useful to me. Make it for pharmacists only.

There are no recent graduates working near me, so my canvass includes none. These men are all in active general practice, and are as well read as our region affords.—H. L. C.