

THE EXAMINATIONS RELEASED FOR PUBLICATION BY

THE WISCONSIN STATE BOARDS OF PHARMACY

by

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Chapter I

Introduction

The first Wisconsin Board of Pharmacy was created in 1882.¹ One of its major activities from the beginning has been to examine and pass upon the qualifications of candidates for the license of registered pharmacist. The medium by which this is accomplished is The State Board Examination. After experience and educational requirements have been answered by a candidate, the decision depends on passing the state board examination.

The purpose of this work has been to collect the examinations released for publication by the Wisconsin Boards of Pharmacy. From 1883 until 1927 copies of these examinations were published annually, with the exception of the years 1884 to 1887, 1889 to 1894, 1918, and 1923. This writer has been able to make a collection of examinations for the balance of this 45 year period.

The importance of this collection is deemed to be: first; it reveals the development of the examination from the simple, hit-or-miss set of questions for the candidate with "five years practical experience, or two years experience and graduation from the University or other college Pharmacy course"², of the late nineteenth century, to the more complex examination, of the nineteen twenties, for the candidate with "one year practical experience and graduation

1. Proceedings Of The Wisconsin Pharmaceutical Association.
V 45, p 35. 1925

2. IBID., V 16, p 17. 1896

from a three or four year college course of a recognized school or college of pharmacy."¹ Secondly, the successive examinations reflect the progress of pharmacy itself, from the day when drugs consisted largely of the tinctures, fluid-extracts, extracts, decoctions, and infusions, largely ; to the later development and greater use of synthetic organics, glandular products, serums, vaccines etc. Finally, a study of these examinations is an aid in formulating the answer to that question every prospective board candidate asks; "how does one study for the state board?"

1. Proceedings of the Wis. Pharm. Assoc. V 47, p 150. 1927

Chapter II

The Development of the State Board Examination

The first published examination of 1883, and probably the first examination given by the Wisconsin State Board, established a basic pattern which has been followed in all the examinations published since. There were thirty written questions; less than five of which would be beyond the scope of a present day student who has completed his first year of a college pharmacy course. Following the written there was an oral examination comprised of "(1) the identification of drugs, chemicals and galenical preparations, and (2) practical pharmacy, reading prescriptions etc."¹ Presumably, the applicants who passed this examination possessed what the examiners thought were the essential qualifications for the practice of pharmacy, namely "a rudimentary knowledge of chemistry as taught by the simple manuals of that science; the ability to read and translate physicians' prescriptions, to point out incompatibilities, correct errors in doses, and describe methods of procedure in dispensing.---well versed in the preparations of the United States Pharmacopoeia. To have a general knowledge of materia medica, with reference to doses, source of drugs, parts used in medicinal preparations, antidotes and treatment in case of poisoning.---to identify specimens of crude drugs, and give their names in Latin and English. To have such preliminary training in the common English branches

1. Wisconsin State Board of Pharmacy Examination Questions. Western Druggist: 5, p. 215. 1883

as is required for entrance into a high school."¹

The candidate's demonstration was satisfactory if he made a general average of seventy per cent, and not less than fifty per cent in any one of the three divisions, i.e. the written, or identification and practical oral.²

In 1888 some effort was made to systematize the examination by dividing the written questions into three divisions: Pharmacy, Materia Medica, and, Chemistry and Toxicology. Whether an oral was also given was not stated in the publication.³

In 1889 the only variation in the form of the examination was that "Botany" shared one division of the examination with Materia Medica. It is assumed the previous practice of giving samples was followed, but these were never published until 1896 when the first list of thirty samples presented to the candidates was published.

Throughout this early period, from 1883 to 1900, the examination was always given in one day; although it is apparent there were many complaints about the shortness of the time allowed for writing. In fact "shortness of time granted to answer the papers"⁴ was one of the three major reasons listed by candidates for their failures. Leading suggestions for improvement in the Boards' procedure invariably included allotting more time for the writing of examinations. Thus, it came

1. Proceedings of the Wisconsin Pharm. Assoc. 16, p. 7. 1896.
2. Wisconsin State Board of Pharmacy Examination Questions. Western Druggist: 5, p. 215, 1883.
3. Wisconsin State Board of Pharmacy Examination Questions. Western Druggist: 10, p. 457, 1888.
4. Alpers, W. C. Examinations Before Boards of Pharmacy. Western Druggist: 18, p. 87, 1896.

as a logical development when the Board announced in 1900 that it would thereafter allow two days for conducting the examinations in order to allow the applicants ample time.¹

Editorial criticism during the formative period of the pharmacy examination was doubtless influential in causing the boards to gradually revise and add to them. It was early urged that "the type of examinations should be altered from the etical type questions to the more practical questions."² Single, and isolated fact questions were condemned as being no criterion of the fitness of a candidate. That type of question, it was pointed out, functioned in favor of people with good memories, but often with little common sense, and poor judgment. It was also charged that "nearly all the examinations held by state boards of pharmacy are of such character that the quiz-compend student is the one most successful in passing them."³

The so-called "quiz-compend" student is not the competent pharmacist and therefor, to achieve their aim, it was contended, the examinations would have to be changed, to perform the duty expected of them. The changes would mean that only the competent candidate would be successful in writing them. The consensus of the demands was, "Questions should require first, the use of knowledge and of faculty, which does determine fitness. Second, the exigencies of practice themselves

1. Editor. Western Druggist: 22, p. 575, 1900.

2. Eccles, R. G. What Should Be the True Aim of Boards of Pharmacy In Their Examinations. Druggist Circular: 33, p. 220, 1889.

3. Mason, H. B. Concerning The Character of State Board of Pharmacy Examinations. West. Drugg., 18, p. 493, 1896.

should be duplicated."¹

In recognition of these demands the board added another feature to the examination. Laboratory and practical work were introduced, in order "to more fully test the capability of the applicant"²

To make the practical examinations possible, the board decided in 1903 that examinations would be held thereafter only in Madison and Milwaukee in order to conduct them in the laboratories of the state university, and those of the Wisconsin Pharmacal Company in Milwaukee.³

After the accomplishment of this outstanding forward step, one can almost detect a note of pride in the "remarks" appended to the 1905 examination. "In addition to questions like those given above, the board also gives each applicant a practical examination in compounding, dispensing and pharmacopoeial tests and such oral questions as to thoroughly prove the fitness of the candidate for registration"⁴ Doubtless, they believed in that "thoroughly" and the perfection of their methods.

In 1910 was published the first separate examination for candidates for the certificate of Registered Assistant Pharmacist. Prior to that, assistants had written the same examination as registered men, but were only required to have a general average of sixty percent, with not less than forty-five on each branch----as compared to the general average of seventy.

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1. Mason, H. B. Concerning The Character Of State Board Of Pharmacy Examinations. West. Drugg., 18, p. 494, 1896.
 2. Editor. Western Druggist: 26, p. 498, 1904.
 3. Editor. West. Drugg., 25, p. 274, 1903.
 4. Wisconsin State Board of Pharmacy Examination Questions. Proceedings of the Wis. Pharm. Assoc. 25, pp. 11-13, 1905.

five per cent, with not less than sixty on each branch, required of the registered man.¹ The candidate who failed to pass the examination for the desired licentiate could have an assistant certificate if he so desired.²

The new and separate examination for assistants was designed on lines similar to the old, but called for less technical information. There is no note of a practical examination for the assistants, and very likely the Board followed the recommendation of the National Association of Boards of Pharmacy made in 1909. That was to conduct examinations for qualified assistants in one day, and "not to include practical work". The reason given for this position was "that Qualified Assistants should never work in the prescription department, except under the supervision of a Registered Pharmacist. Thus to have the examination of an applicant for Qualified Assistant include Practical work would seem unfair to the applicant, and uncalled for."³ Commenting further on the scant attention paid the examinations for qualified assistants, the National committee asserted; "If this class of pharmacists is to be considered seriously, then their examination should be considered seriously, and should be based upon the fundamental principles of pharmacy, and on work in which they are supposed to be engaged."⁴ This would more nearly take into account the requirements of the law for a registered assistant i.e. the minimum age limit of eighteen years, and two years practical

1. Proceedings of the Wisconsin Pharm. Assoc. 19, p. 12, 1899.
2. IBID. p. 12.
3. Davis, C. H. Report of the Committee on Questions and Methods. Proceedings of the National Association of Boards of Pharmacy: 6, p. 21, 1909.
4. IBID. p. 21

experience before writing the examination. ¹

It is apparent that the Wisconsin Board decided they must take this "class of pharmacists" seriously, and not expect any action on their proposal before the legislature in 1903 to abolish "assistant certificates".²

From 1910 to 1927 there was no basic change in the form of the board examination. Emphasis during this period seemed to be largely on revising the requirements to be filled before writing it.

1. Proceedings of the Wisconsin Pharm. Assoc. 16, p. 20, 1896.
2. Schrank, H. C. Wisconsin Legislation, Past and Prospective. West. Drugg. 26, p. 202, 1904.

Chapter III

The Question Of Whether To Publish
The State Board Examinations

As earlier stated the first board examination was published in 1883. The reason was probably just to put on record the board's first achievement in this function. For the next four years there were no examinations published. As yet no importance was attached to the act, undoubtedly. By 1887, however, criticism of the board and its examination policies was beginning to be heard.

From one source, "Much dissatisfaction has been felt concerning the grading of State Board examinations."¹ It seemed that many "worthy candidates" had been rejected, and as a remedy, "It is suggested that one list of Board questions be published annually. This would give the applicant some idea of what to expect."²

In 1888 the next examination was published. At the same time appeared an article by the permanent secretary of the Wisconsin Pharmaceutical Association, differentiating Wisconsin policy from the contemporaneously criticised "silent" policy of the neighboring board of Illinois. "In Wisconsin no silent policy has or is being considered. The per cent required and the manner in which the examinations are conducted have been published. Upon request the candidates have been sent their standing in each branch of the examination,

1. Editor. West. Drugg., 9, p. 14, 1887.

2. IBID. p. 14.

and in many cases they were furnished with copies showing them where errors were made."¹

By 1892 the board decided that it would have to cease returning examinations, at least to candidates who failed, because it involved a great deal of "useless labor" since "Such a large proportion of candidates who know their inability to pass the examination present themselves for examination simply to find out where they stand."²

Criticism on the question of publishing the examinations was both pro and con, and by 1894 the board had resolved the question in favor of publication. Thereafter the examinations appeared in print annually, or oftener, until 1927 (with the exceptions as previously mentioned of 1918 and 1923). The decision was made on the theory that "criticism is based on the assumption that such publicity encourages cramming, and in this way unqualified applicants squeeze their way into registration by reason of glibness rather than knowledge. The objections pointing out disadvantages are greatly outweighed by the advantages. The tax-paying druggists have a right to know the necessary qualifications required for registration. The candidate is also entitled to know what is being expected of him. The board feels there is little danger of success from cramming, providing the examiners know their business and are willing to spend sufficient time and labor in preparation of proper test questions for each examination."³

1. Heimstreet, E. B. Wisconsin Board of Pharmacy. West. Drugg., 10, p. 68, 1888.
2. Editor. Wisconsin Board of Pharmacy. West. Drugg., 14, p. 478, 1892.
3. Editor. West. Drugg., 16, p. 444, 1894.

Why the state board examinations ceased to be published after 1927 is not recorded. It may be that the criticisms formerly considered of little weight began to assume greater value in the perspective of the boards, and to outweigh the advantages formerly held to be more important. Or it could be the boards just didn't wish to release them for criticism. The same policy has been adopted in other states, as is indicated by the response Connecticut candidates received when they requested copies of their state board examinations; boards no longer release such papers for publication."¹

1. Editor. Request for State Board Questions. Drugg., Cir., 77, p. 36, 1933.

Chapter IV

Pharmacy Examinations In The Past Twenty Years And
The Relations Of State Boards To Colleges

The developments in the state board examinations of the past twenty years can only be inferred from the criticisms published, and the changes urged on a national basis. Wisconsin records contain little reference to their examinations, other than time, prerequisites, and qualifications essential to writing them.

The National Association of Boards of Pharmacy, organized in 1904 for the purpose of providing "for interstate reciprocity in pharmaceutical licensure based upon a uniform minimum standard of pharmaceutic education and uniform legislation"¹, performed considerable constructive work in improving examinations. It has continued an exhaustive study of the problem over the years in order to find the most accurate methods for determining the efficiency of a candidate. The methods recommended by them were to be employed by all states desiring to have their registrants recognized by other states for reciprocal registration.

Early criticisms of state board examinations made by the National committee, included: first, a lack of correlation between the different subjects embraced in the examinations. Second; a tendency was shown by examiners to overemphasize their own specialities. Third; questions were often badly composed. Fourth; an undue proportion of elementary questions

1. Proceedings of The National Association Of Boards Of Pharmacy. 5, p. 50, 1908.

i.e. questions that could even be answered by the layman.

Fifth; the committee charged that some boards were attempting to regulate the number of pharmacists by their examinations. This practice was condemned as nothing short of vicious, and an abuse of the proper function of the examination.¹

Throughout its existence the National Association, through its Advisory Committee on examinations, has worked to correct the outstanding evils of the examinations in order to achieve uniformity as the base for nationwide reciprocity. It has defined and redefined the purpose of the examination; the qualifications of applicants as to education and practical experience; and revised the material to be included in the examination.

Particularly important was their promotion of the practical division of the examination. Subsequent to the Association's adopting it as a part of their model examination, which was the minimum standard for states desiring reciprocity, the practical work was adopted by many states, and all who later joined the association. It may be noted here that Wisconsin became an active member of the association in 1911,² signifying that the board was allowed by state law to interchange certificates of registration, and the examination conformed to the national minimum standard.

The National Association resolved the question of prerequisite practical experience against the early long term requirements of four or five years down to the present re-

1. Report of the Advisory Examination Committee. Proceedings National Association Boards of Pharmacy. 11, pp. 76-80, 1914.

2. Membership. Proceedings Nat. Assoc. Boards of Pharm. 8, p. 23, 1911.

quirement of one year.¹ The fundamental reason for this change in the value attached to prerequisite experience was that "experience which an apprentice receives today in the average drug store is not the experience which enables him to pass Boards of Pharmacy examinations. The good old days long past wherein an apprentice was obliged to spend at least two hours a day in study and instruction from his employer have passed away, and we often have presented before us for examination young men of four years' experience who have had no opportunity to learn little beyond the routine work of the store. It is true some of these men, by the aid of quiz compends and tutors, manage to answer the questions, while in practical work they are almost total failures."²

Paralleling, and necessarily a part of, the struggle to decrease the practical experience requirement, was the effort to increase the formal educational requirements. Not until 1940, to become effective in 1944, did the National Association of Boards of Pharmacy establish the four-year course as a basic requirement for reciprocal registration.³

It is interesting to note that when it was first "radically" proposed that the possession of a college diploma be made a prerequisite for the examination for registered pharmacist, the opposition was up in arms, contending it was an abrogation of constitutional rights. Typical was the opposition of the Illinois Pharmaceutical Association

1. Constitution and By-Laws. Proceedings Nat. Assoc. Boards of Pharmacy. 37, p. 195, 1940.
2. Hubbard, F. A. President's Address. Proceedings Nat. Assoc. Boards of Pharmacy. 5, p. 7, 1908.
3. Constitution and By-Laws. Proceedings Nat. Assoc. Boards of Pharmacy. 37, p. 195, 1940.

which based its stand on three major objections: first; The right to an examination is a constitutional right, the sole question being; has a candidate the qualifications? Second; Druggists and the Boards should be supreme. This law would put the colleges in a position to dictate and practically destroy the power of the boards. Third; Prerequisite legislation means higher wages for clerks.¹

The crux of the matter actually seemed to be that the boards were jealously guarding their rights and fighting the influence of colleges. They were actually afraid they would be divested "of the right to pass on the preliminary qualifications of candidates for registration".²

It took many years to overcome this particular antagonism of boards toward colleges. The consensus of the argument which finally caused the boards to yield probably was that in order to maintain their professional status, pharmacists would have to complete a four-year college to qualify for registration. Unless this became the requirement, pharmacy would "degenerate into mere mechanical retailing" instead of providing "that body of expert knowledge of drugs and medicines which the physician requires."³ Furthermore, the number of galenicals used in current materia medica is small in comparison to the number of synthetic organics, glandular products etc. The pharmacist no longer makes these himself, and his

1. Editor. Subjugation of Druggists And Boards of Pharmacy By The Colleges. West. Drugg., 30, pp. 413-414, 1908.

2. Editor. Qualifications for Registration. West. Drugg., 30, pp. 273-274, 1908.

3. DuMez, Dr. A. G. One Million Students Can't Be Wrong. Drugg. Cir., 73, p. 10, 1929.

knowledge of them must be obtained somewhere, logically in a college of pharmacy."¹

Recognition of the friction, or more tactfully stated, lack of cooperation between boards and colleges dates back to at least 1908. It was pointed out then by the National Association of Boards of Pharmacy that "both bodies are working with a single aim, the advance the interests of American Pharmacy; but while their aims are alike, there is too little practical cooperation."²

Since the function of the college is to fit its students to assume the responsibility of supplying the public with drugs and medicines; and the function of the board is to pass upon their competency, it was thought there was common ground for working together. "Surely board members ought to be interested in the preparation of their examinees, and just as surely board members ought to have a voice as to the subjects in which such preparations shall be made and the relative amount of time to be given to each subject. The boards have never made a direct statement upon this matter. They have never worked in unison. Only by inferences drawn from their examination papers has it been possible to gather an idea of the subjects in which they expected their examinees to be prepared."³

Apparently board members became very conscientious about this aspect of their functions, but their ideas on what

1. Dumez, Dr. A. G. Drugg., Cir., 73, p. 10, 1929.

2. Executive Committee. Proceedings of the National Association Boards of Pharmacy. 6, p. 17, 1909.

3. IBID. p. 17

college instruction should include were not always accepted by the colleges. A number of them were repudiated in an address by a famed Wisconsin pharmacist in 1929. First of the subjects advocated for the pharmacy curriculum by board members was salesmanship. Yet, while these men urged the equipment of a laboratory for the study of salesmanship, "in their examinations they ask questions in Chemistry, botany physics, etc."¹

A second request of boards was more English, and Pharmaceutical Arithmetic. This suggestion was rejected as not being practical insofar as it prepared students for certain catch questions in the board examinations, but would never be used in pharmaceutical practice.

A third subject mentioned is oratory, and it is dismissed as certainly not being practical enough to displace study of the basic sciences.²

Despite any failings or shortcomings in their examinations the boards did not believe they were wholly at fault when pharmacy school graduates failed to pass their board. Instead it has been maintained the blame must be distributed between both examining boards and the schools. Said one board man, "The board is responsible for ascertaining the fitness of a candidate to practice in the field of pharmacy and if a candidate has been trained properly he should be able to give a good account of himself in a comprehensive

1. Kremers, Dr. Edward. The Dilemma of the Pharmacy Professor. Proceedings of the Wisconsin Pharmaceutical Association. 49, pp. 120-126, 1929.
2. IBID. p. 125

examination covering the entire field."¹ This statement would seem to place an equal share of the responsibility on the training an applicant had received. Nevertheless, a few years later, in 1940, the same board member admitted "It is possible and even quite probable that the tests now generally given by Boards of Pharmacy do not represent the best method of determining what the Board of Pharmacy is supposed to determine."²

It has gradually come to be realized that the old methods of the State Boards are an unnecessary duplication of college examinations. In clinging to them, the boards are merely refusing to recognize that the old examination has outlived its usefulness, and that even if it means one aspect of their function is transferred to the colleges, the applicants for registration who have completed a four-year course in Pharmacy may be credited with sufficient knowledge in the basic sciences, and of the responsibilities of a registered pharmacist, as not to need another examination by the board.

The National Association has summarized the problem; "Boards of Pharmacy need not rush in and accept radical changes of methods, but they should not close their eyes to the need for a gradual development of examination methods which avoid duplication of college examinations and which methods should establish the ability of the candidate to apply specialized knowledge to the everyday problems of conducting a pharmacy

1. Fischelis, R. P. Who Is Responsible When Pharmacy School Graduates Fail To Pass The Board. Drugg. Cir., 7, p. 15, 1930.
2. Fischelis, R. P. A Restatement Of The Functions And Objectives of State Board Examinations. Proceedings Of Nat. Assoc. Boards of Pharm. 37, p. 103, 1940.

and particularly to the giving of satisfactory prescription service."¹

In the future state boards may be willing to accept the approval, signified by their degree, placed by colleges on candidates for a registered pharmacist license. They might then discontinue giving, as well as publishing, their examinations, and confine their efforts to a more thorough and extensive exercise of other board functions.

end

1. Winne, A. L. I. Report of Committee to Study Modernizing of The Practical Pharmacy Examination. Proceedings Of Nat. Assoc. of Boards of Pharm. 37, pp. 89-93, 1940

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