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Micro-chemical examination of feces
Pharm. Weekblad, 59 (Mch. 11, 1922), 234
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Jacobs, R. L.
Automobile polishes
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Mitchell, C. H.
Chemistry of inks
J. Soc. Chem. Ind., 41 (Mch. 15, 1922), 92R
Sayre, L. E.
Beverages and fruit flavors
Am. Drug., 70 (Mar. 1922), 24

PROCEEDINGS OF THE LOCAL BRANCHES

"All papers presented to the Association and its branches shall become the property of the Association, with the understanding that they are not to be published in any other publication than those of the Association, except by consent of the Committee on Publication."—By-Laws, Chapter X, Art. III.

Reports of the meetings of the Local Branches should be mailed to the Editor on the day following the meeting, if possible. Minutes should be typewritten, with wide spaces between the lines. Care should be taken to give proper names correctly, and manuscript should be signed by the reporter. To maintain its activity and representation each Branch should see that at least three of its meetings during the year are reported in the JOURNAL.

BALTIMORE.

The March meeting of the Baltimore Branch of the American Pharmaceutical Association was held at the Emerson Hotel on March 22, 1922.

Dr. Hermann Engelhardt, the newly elected President of the Branch, in his opening remarks greeted the Branch as their leader for the ensuing year. There was a good attendance.

Dr. E. F. Kelly, as chairman of the Committee on Legislation and Education, explained the splendid progress of the bills in the Maryland Legislature dealing with the positions of the pharmacists and the State Board of Health. Emphasis was laid on the most unusual coöperation of the pharmacists in the state in supporting these measures.

The main feature of the evening was an address by Dr. Neil E. Gordon, head of the Department of Chemistry of the University of Maryland. The title of the address was "Emulsification and Absorption." The speaker made clear the theory of emulsification from the standpoint of the physical chemist and colloidist, and laid particular stress on the three phases of the usual pharmaceutical emulsions. The permanency of emulsions was discussed at great length, and slides were used to illustrate the stability of emulsions made with various emulsifying agents. At this point the lecturer introduced Fisher's so-called "Hydrate Theory" of emulsification, which holds that the soluble phase of the three phase emulsion forms with water a large hydrate, thus modifying the properties of the water to the extent of more or less permanently suspending the insoluble phase. The "Hydrate Theory" explains that the breaking of emulsions by the addition of saline solutions is due to the neutralization of the charge on the hydrate by the electrolyte.

Under "Absorption" Dr. Gordon discussed some of the research work in which he was engaged, establishing a ration between the hydrogen ion concentration of absorption of many substances, including iron, aluminum and silica jells.

Following the lecture an exceedingly interesting discussion took place, in which H. H.

Crosbie, chemist with Messrs. Sharp & Dohme, criticized the theory of emulsions of the colloidists and stated very emphatically that the physical chemist had derived his theory from the long established pharmaceutical idea of emulsions. After this lengthy discussion, it was generally admitted that much valuable information had been gained by all.

A letter from the secretary of the Washington Branch, accepting the invitation of the Baltimore Branch. for a joint meeting on April 26th, was read.

B. OLIVE COLE, *Secretary-Treasurer.*

CHICAGO.

The 126th meeting of the Chicago Branch of the American Pharmaceutical Association was held at the University of Illinois School of Pharmacy Building, Friday evening, April 7, with President C. M. Snow in the Chair, and a good attendance of members and friends.

President Snow introduced the speaker of the evening, City Chemist A. E. Anderson of Moline, Ill., a graduate of the U. of I. School of Pharmacy (1911) and formerly a pharmacist of Moline, who presented an illustrated lecture on the "Purification of the Water Supply of Moline."

The lecture was of great interest not only from a scientific standpoint but from the standpoint of the accomplishments of a pharmacist still deeply interested in the great pharmaceutical problems of our day. The description of the water plant, and of the Mississippi River at this point from which the water is obtained, introduced the lecture. The methods by which the very turbid water of the river, frequently containing large numbers of bacteria, are purified by alum precipitation, filtration through the alum "flock," sand and gravel, and chlorination with free chlorine, were also very clearly presented with many excellent pictures illustrating the same.

The chemical and bacteriological laboratories proved of greatest attraction to most of the audience. While the methods of water and milk examination used are the standard ones, every method is kept right up to date and no means spared in providing the best facilities for good work. A complete series of bacteriological tests of the raw and the treated water is run every day as well as determinations of the turbidity and color. The turbidity is estimated on the basis of one gram of fuller's earth mixed with one liter of distilled water having a valuation of 1,000. By dilutions of this standard to the same degree of turbidity as the water exhibits it is possible to give a value to the turbidity of the water. While the turbidity of the raw water at Moline may sometimes reach as high as 800, its average is about 125. The turbidity of the treated water seldom reaches 10 and is frequently at zero. The color of the raw water is also frequently very high but the color is usually reduced to almost nil. The bacterial count in the raw water has reached as high as 138,000 per cc though it usually is much below this, but in the treated water very seldom exceeds 10 per cc.

Of great interest, also, were the charts and tables indicating the degree of purification and comparing the city water supply at present with what it had been in previous years. The Typhoid Fever Mortality Chart indicated a decrease in the death rate from 151 per 100,000 to none.

A number of questions were asked from the audience and an extended discussion followed the address. Particular reference was made to the remarkable achievements of preventive medicine and the part that pharmacists and chemists were taking in this work.

The May meeting of the Branch will compare the progress of U. S. P. and N. F. revisions, with several short papers on certain drugs and processes.

E. N. GATHERCOAL, *Secretary.*

CINCINNATI.

The March meeting of the Cincinnati Branch, American Pharmaceutical Association, was held at the Lloyd Library, March 31, and was devoted mainly to a discussion and demonstration of the "One Hour Frog Test" for the standardization of digitalis.

Miss Elizabeth Gates and Miss Louise Lilly of the Control Laboratory of the Wm. S. Merrell Co. gave a demonstration of the pharmacopoeial method for physiologically testing digitalis leaves on frogs. Miss Gates, who described the method as the demonstration was made, explained the requirements of the Pharmacopoeia, namely, that the frogs should be kept in running water at a uniform temperature, not above 15 degrees; that their resistance should be tested by crystallized ouabain, and that the frogs used must be in a healthy condition, and in order to make the end results comparable must be of the same species, and must be of a fairly uniform size, preferably weighing between 15 and 20 grams. The frogs used in this case were the com-

mon grass frogs, *Rana Viridis*. (Part of the explanation is reported.)

Exactly one hour before the demonstration, each frog to be operated on was administered a dose of the digitalis preparation under examination, in this case the fluidextract, which was carefully calculated to the weight of the particular frog. As a rule four frogs of practically uniform weight are taken for one determination, and the dose per gram of body weight varied from 0.0002 to 0.001 of a cubic centimeter with each of the four frogs. The liquid preparation is first so diluted that the quantity injected in each case is approximately uniform, and in no case more than 0.015 cc of liquid for each gram of body weight of frog. In no case must the liquid contain more than 20% of alcohol. If the preparation under examination contains a larger proportion of alcohol, part of this can be driven off at a low temperature, and the dose made up by the addition of an aqueous normal salt (0.7% NaCl) solution.

The dose is carefully measured by means of a finely graduated pipette. In practice, Miss Gates explained, it is preferable to use a hypodermic syringe for the injection rather than the pipette directed by the Pharmacopoeia (p. 54), as even with this some skill is required to insure the injection of the dose without any loss. At the end of one hour the frog is pithed. If the doses have been properly graduated, it will be found that the exposed heart of one or two of the frogs will have stopped in one hour in systole, with the auricle widely dilated and the ventricle contracted. No general contraction, or only a very feeble one, should follow mechanical stimulation of the heart, though slight contractions in the auricle and ventricle do not vitiate the end results.

This trial assay will show the approximate strength of the preparation. A second series of frogs is then injected in the same manner, but with much narrower dose limits between the different subjects. In some cases it may be necessary to make as many as three or four sets of examinations, in order to arrive at positive determination of the required dose.

In view of the fact that there is a considerable difference in the susceptibility of different frogs, the frogs are first standardized by the administration of solution of ouabain, the standard dose of which is 0.0000005 gram per gram of body weight of frog. The standard dose of official tincture digitalis to correspond with this is 0.006 gram per body weight of frog.

If in the application of this test it is found that a particular lot of frogs are unusually resistant to ouabain, so that a dose of 0.00000075 gram is necessary to stop the heart in systole after one hour, the dose of tincture digitalis would have to be increased approximately to 0.009 cc. Put into the form of a statement in proportion, this would read:

Standard dose of ouabain	: Found dose of ouabain	: Standard dose of drug being assayed
	Necessary dose of unknown	

In the discussion that followed Miss Gates explained a number of details which must be observed in order to get a concordant result, but when these details are observed the results are so accurate as to give a very reliable index of the toxicity of the drug under examination.

She pointed out, however, that while this was the only standard for determining the strength of digitalis provided for in the Pharmacopoeia, it did not follow that this was the correct standard from a clinical standpoint, for an examination was made in the Merrell Laboratories of digitalis tincture prepared from a sample which had been divided into two parts when first collected. This examination showed that the tincture made from the dry drug was twice as toxic as that made from the same lot of drug which was put into alcohol as soon as collected without drying and made up into the "Green drug tincture," though this green leaf tincture gave better clinical results than did that made from the dry leaf.

It is a matter of regret that so far no adequate clinical or cardiographic determination had been made of the relative therapeutic value of the preparation made from the fresh drug, and that made from the dry drug.

Miss Gates and Miss Lilly were given a rising vote of thanks by the members of the Branch, all of whom were greatly interested in the subject.

Dr. Caswell Mayo briefly summarized the history of hydrogenated oils, outlining the possibilities of the use of hydrogenated oils in pharmacy and showing some samples of Zinc Oxide Ointment, made from crisco—a hydrogenated cottonseed oil.

The great advantage which these hydrogenated oils possess over lard is that they keep

indefinitely. One sample of Zinc Oxide Ointment, made from hydrogenated cocoanut oil, was shown which had been made seven years ago, and was still unchanged. Sample was also shown in which the introduction of hard paraffin as a means of making a stiffer ointment had resulted in crystallization of the product.

The speaker stated he had received a note from Dr. Jacob Diner, chairman of the Committee on Ointments of the Committee of Revision of the Pharmacopoeia, who informed him that while the use of hydrogenated oils for pharmacopoeial ointments had been discussed, these oils had not been adopted.

Dr. Mayo also brought to the attention of the members the fact that the U. S. Commissioner of Internal Revenue had under advisement a plan for the issuance of permits to use tax-free premedicated or special denatured alcohol in the manufacture of medicines for internal use. This had been objected to by a pharmaceutical conference held in Washington, and also at a meeting of pharmacists held in Philadelphia. Resolutions opposing it had also been adopted by the Cincinnati Academy of Medicine, and he suggested that a committee be appointed to draw up resolutions giving the views on the subject and forward them to the Secretary of the U. S. Treasury. The suggestion was adopted and a committee was appointed, consisting of D. E. Murphy, Fred Kisker, Chas. A. Apmeyer, Louis Werner, to draw up the Resolutions, after conference with Chairman Frank Freericks, of the Committee on Legislation.

CHAS. A. APMEYER, *Secretary.*

DETROIT.

The Detroit Branch of A. Ph. A. met April 14, 1922; President Washburne presided. The reading of the minutes of the previous meeting was dispensed with, due to the extended program of the evening. The members of the Detroit Retail Druggists' Association had been invited, so that a large enthusiastic audience was on hand to enjoy the program.

The president announced the annual election of officers to be held May 12, 1922, on the occasion of the last regular meeting of the year 1921–1922. He appointed Messrs. Scoville, Mann and Webster to serve as a Nominating Committee.

Mr. Drugociu was introduced as the first speaker of the evening to give a talk on "Pharmacy in Roumania." He explained the difference between a drug store and a pharmacy as they are known in that country. The fact that pharmacists are protected and, in a sense, subsidized by that government explains also why the pharmaceutical profession of Roumania is so highly respected and so well rewarded for their labors. He promised to discuss a comparison of American and Roumanian practices in pharmacy at some later date. At the conclusion of his talk he was plied with questions concerning the extent of government regulation of the profession and other points which arose during it. The discussion was led by Messrs. Schettler, Hall, Seltzer and Webster.

President Washburne then introduced Prof. Charles H. Stocking, Secretary of the Department of Pharmacy of the University of Michigan, who read a paper on the subject "A History of the Department of Pharmacy of the University of Michigan," which traced the development and vicissitudes of that department since its inception, in the year 1868, to the present time.

Charles Smith, who was scheduled to address the meeting on developments in "Wholesale Pharmacy," enlarged the scope of his talk by relating some stories and anecdotes concerning his earlier career in retail pharmacy. Upon request of Mr. Smith, all present rose for a few seconds in honor of those who had blazed the trail in our profession, and whose names had been mentioned frequently by all the speakers.

The next paper was by Ernest Kimmich, who chose "Manufacturing Pharmacy" as his subject. He dealt with his experiences, problems and impressions while the business grew from a small shop to a plant covering many acres.

Wilbur L. Scoville followed with a talk on "Reminiscences of My Education in Pharmacy." He spoke of the limited curriculum which existed at the college of pharmacy in his youth and the typical tricks perpetrated by the students on various members of its faculty.

The concluding features of the evening were talks given by Messrs. Mann, Schettler and Rohnert. Their reminiscences caused much merriment, as they told of the times when pharmacy was young in this city. They presented also serious facts concerning the practices and struggles within the profession during the eighties and nineties. The changes and improvements in retail pharmacy were reviewed by each speaker as his memory furnished them. All three visioned a brighter future for legitimate pharmacy.

Mr. Crandall, chairman of the Program Committee, announced the annual election of officers for the last regular meeting of the year, May 12, 1922. In addition, Mr. Leonard A. Seltzer is on the program for a talk on "The Revision of the U. S. Pharmacopoeia," while Mr. Gorenflo, member of the Michigan State Board of Pharmacy, will stage a "Prescription Clinic."

Messrs. Charles Smith and C. F. Mann contributed further to the history of pharmacy in Detroit in relation to Dr. A. B. Stevens and others who had once occupied a prominent place in local pharmaceutical circles.

EDWARD K. FIELD, *Secretary.*

INDIANAPOLIS.

The March meeting of the Indianapolis Branch of the American Pharmaceutical Association was held in the Chamber of Commerce, Indianapolis, March 21st.

A stereopticon lecture was given by Dr. Homer W. Smith, formerly with the Hygienic Laboratory at Washington, now in the Research Department of Eli Lilly & Company. Dr. Smith's subject was: "The Dynamics of Arsenic Therapy."

The use of arsenic in the form of the sulphide as an outside remedy for ulcers, etc., dates back to Hippocrates. Dschabir, in the eighth century, was the first to roast the sulphide and obtain white arsenic (As_2O_3). In the fifteenth, sixteenth and seventeenth centuries white arsenic was extensively used by professional poisoners, it being the only commonly known poison which could not be detected by taste, smell or color. The first therapeutic preparation of arsenic was Fowler's solution, introduced in 1786 by a London physician of that name, as an ethical reproduction of a secret and popular nostrum called "Tasteless Ague and Fever Drops."

Practically all the organic compounds of arsenic, following Cadet's discovery of cacodyl, are synthetic. The first aromatic arsenical was atoxyl, a by-product in the manufacture of the dye magenta. The constitution of atoxyl was demonstrated by Ehrlich and Bertheim in 1907, and many other aromatic arsenicals were synthesized by Ehrlich and his co-workers and their therapeutic powers tested on animals infected with protozoal diseases. Arsphenamine was completed in 1910, and neoarsphenamine in 1912. Subsequent investigations of the therapeutic activity of various arsenicals have shown that Ehrlich's interpretations of their modus operandi is erroneous: the keynote to the biochemical properties of arsenic lies in the fact that it only exerts a direct toxic action on living protoplasm when it is in the trivalent-oxide state. In the more highly reduced arseno state, and in the oxidized or pentavalent state, arsenic is not toxic for any form of life. (These relations are equally true for antimony.) The pharmacological properties of various arsenic and antimony compounds can be very largely explained by a consideration of the ease or rapidity with which oxidation or reduction of any particular compound takes place. These same factors determine in large measure the ratio between the minimum lethal dose and the minimum therapeutic dose. This ratio is greatest in the case of the arseno compounds, arsphenamine and neoarsphenamine, which are not directly active but which are readily oxidized to the corresponding toxic and parasitocidal oxides. Because of the ease with which these substances are oxidized, it is necessary to prepare solutions of arsphenamine and neoarsphenamine with great care, to prevent increased toxicity or even loss of therapeutic activity.

The annual election of officers was then held; this was reported in the April JOURNAL A. PH. A.

ERNST STAHLHUTH, *Secretary.*

NORTHWESTERN.

The officers of the Northwestern Branch contributed toward the joint meeting of the Minnesota State Pharmaceutical Association. The Scientific Section and the Section of the Branch held a very profitable joint meeting on February 16th, devoting the entire day from 9:30 in the morning until 6 o'clock in the evening. The audience at times, especially in the afternoon, numbered over four hundred. The proceedings of the joint meeting will be published as a part of the 1922 Proceedings of the M. S. P. A. A number of the papers will be printed in the JOURNAL A. PH. A.

Reported by DEAN FREDERICK J. WULLING.

PHILADELPHIA.

At the March meeting, held at the Phila. College of Pharmacy and Science, Tuesday, March 14th, Dr. Robert C. White was introduced by President England as the speaker of the evening. His subject was "The Coating of Compressed Tablets." Various methods of coating and polishing were outlined and illustrated. Formulas for the different coatings were given and the necessity of varying these formulas, according to the composition

of the tablets, was discussed. Dr. White's address was well received and a vote of thanks was tendered to him.

Reports of the committees appointed at the last meeting were then presented. A. B. Nichols, chairman of the auditing committee, reported that the books of the secretary and treasurer had been examined and found correct. The committee expressed appreciation on finding such a satisfactory balance in the treasury.

The nominating committe made its report through Chairman E. Fullerton Cook. The nominees for 1922–23 were elected, and are as follows:

President—Wm. H. Jenkins, a graduate of University of Iowa College of Pharmacy in '95. He engaged in the retail drug business until 1900 when he joined the U. S. Custom House Service; in 1917 he became attached to the field force of the Department of Agriculture. In 1920, he went with H. K. Mulford Co., as manager of the "Fluid Department."

First Vice-President—Dr. Horace B. Morse, of Temple University. Dr. Morse has been granted leave of absence by the university, for special studies.

Second Vice-President—Wm. R. Decker, a retail pharmacist since 1901, and is active in all the local and national organizations.

Secretary-Treasurer—Jos. W. E. Harrisson, Assistant Chemist, Bureau Foods, Pennsylvania Department of Agriculture.

Fraternal Relations Committee: Chairman—Frank E. Morgan, a retail pharmacist since 1881; Dr. Horatio C. Wood, Jr., well known author and member U. S. P. Revision Committee; Joseph W. Noble, president of the Philadelphia Retail Druggists' Association.

Membership Committee: Chairman—Ralph R. Foran, of the Technical Chemistry Department, P. C. P. and S.; J. C. Peacock, president, Pennsylvania Pharmaceutical Association, and Leo G. Penn, retail pharmacist and member of Temple University teaching staff.

Practical Pharmacy Committee: Chairman—Robert C. White, graduate of the University of Maryland, 1903; formerly connected with Temple University, now president of the Robert C. White Co., Inc.; John K. Thum, apothecary at Lankenau Hospital, and Robert Simpson, retail pharmacist.

Council Member: Dr. Frank E. Stewart.

The new officers of the Branch were installed. President England expressed his appreciation of the coöperation he had received during the year from the members.

JOS. W. E. HARRISSON, *Secretary.*

CORRESPONDENCE

IRREGULARITIES IN THE CONDUCT OF EXAMINATIONS IN ILLINOIS.

The exposé in Illinois regarding irregularities in the conduct of state examinations for licensure of pharmacists, physicians, dentists and "other practitioners," as described in the daily press, notably in the *Chicago Daily Tribune*, is another argument against a system—consolidation of boards—which gives opportunity for the protection of dishonest practices.

While the whole story cannot be told until the State's Attorney's office has had ample opportunity to present its case to the Grand Jury, I feel it my duty, as Secretary of the National Association of Boards of Pharmacy, to give to the pharmaceutical press a statement of the facts, so far as they may be divulged at this time.

A few of the high points should be set forth at the very beginning:

First: To the credit of pharmacy and pharmacists, let me say that the Pharmacy Examiners themselves in this state are not accused of being responsible for, or of knowingly aiding in, the disgraceful proceedings, although they had begun to suspect that all was not well.

Second: The pharmacy examinations, it now develops, had but a minor part in the plot; medicine, nursing, veterinary medicine, dentistry, chiropractic, osteopathy, etc., etc., were all involved—the "big killings" appear to have been made in medicine.

Third: The irregularities consisted, so it appears at this writing, in supplying advance copies of the state board questions to individuals conducting certain "Quiz" schools who either sold them to their students direct or "fed" them to the students in short review courses of a week or ten days preceding examination. The fees charged ranged from $200.00 to $500.00. Lists of names of men who had failed in examination were supplied to these schools and a high-pressure