

The Apothecary



1947

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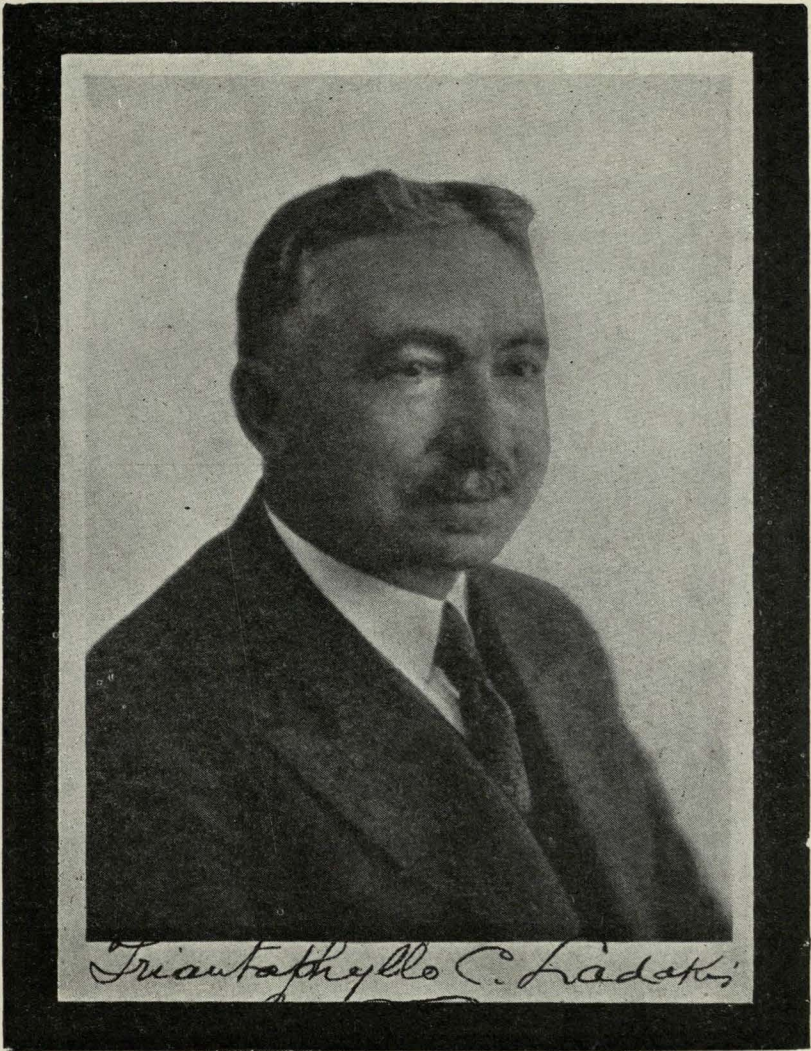
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The front cover sketch of the School of Pharmacy has been especially done for The Apothecary by Mr. Wajih Mishriki — Pharm. IV.

WE DEDICATE THIS NUMBER
TO THE CHERISHED MEMORY
OF THE LATE

Prof. EMERITUS Dr. TRIANTAPHYLLO LADAKIS

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PROF. EMERITUS DR. TRIANTAPHYLOS IADAKIS



1876 - 1947

In Memoriam

On the afternoon of May 12, inspite of the unusual rainy weather, Dr. Ladakis left his house and walked to West Hall to take tea and see his friends. After the tea he felt very ill and went to see the doctor. While in the taxi preparing to enter the hospital, he passed away. It is hard to believe that he is dead. To us he is still alive. Alive with his fatherly smile and kindly word. Alive in everything which we touch or see. Everything in the pharmacy school reminds us of him : his picture in the office, the staircase which he mounted daily to his classes, his painting in the Reading Room, the classrooms where we sat and listened to him patiently expounding to us what we could not understand, his beautiful handwriting on bottles, on files, on books and the feeling that he must be around in the building somewhere. May be he is in the laboratory, No ? Surely in the pharmacy, we cannot believe ? Oh, we have found him, he is in our hearts and in our memories. Dr. Basilio spoke mildly when in Church he said of him that he was very kindhearted, sweet, tacftful, wise, devoted to his students, to his University, to his adopted country and to his motherland. His students called him father (abouna) for father he was to them.

Prof. Ladakis was born in 1876 in the seaport town of Moudros on the Greek island of Lemnos which was then under Turkish rule. His preliminary education was done at the Greek Community School there. At the age of eleven he joined relatives in Egypt for further study. For the next nine years he was an apprentice in a Pharmacy at the same time that he was pursuing his studies in Arabic and French. He was then bookkeeper for one year in the Suez Canal Water Works, while at the same time he was working part of the day in a Pharmacy.

In 1897, at the age of 21, he came to the S.P.C. (A.U.B.) Preparatory School, finished « C » form by Christmas, and « B » form by June. He then spent the summer in the Lebanon and in the fall passed the entrance examinations to Freshman Year. After one year he completed the work of Sophomore year during the summer and passed the entrance examinations to the School of Pharmacy. At the end of the regular two year course in Pharmacy, during the senior year of which he assisted the Professor of Chemistry, he graduated with honor in June 1901, and received the M.S. Degree in Pharmacy after passing the Turkish Examinations held in Constantinople.

In October of 1901 he began his teaching in the School of Pharmacy, during the first year, teaching the Practice of Pharmacy and assisting in Analytical Chemistry, and in 1902 assuming full responsibility for both these courses, the latter of which included students of Dentistry and Medicine. In 1904-5 he became adjunct professor. In 1907, during v year on leave, he spent a summer in Europe and two semesters at the Philadelphia College of Pharmacy where he obtained the Doctor of Pharmacy degree, at the same time winning the Remington Prize, consisting of a valuable analytical balance, for proficiency in the Practice of Pharmacy.

Prof. Ladakis returned to his Alma Mater in the Fall of 1908 as a full professor and has remained here ever since except for leaves taken to visit Greece and Egypt, besides being interned for the war years

1917-19 at Hama and Marash. In 1911 he published a textbook of Chemical Analysis which was used for all students taking such work until the edition was exhausted in 1921.

In 1920-21 he became the principal of the School of Pharmacy and four years later its director and remained in this capacity and as Professor of Pharmacy until 1941. In the fall of that year he became Professor Emeritus. He continued to keep in the closest touch with the University in general and with the School of Pharmacy in particular and hardly a day passed without seeing him in the University Pharmacy talking with staff and students. In him we have lost a great friend, teacher and counsellor.

Staff of the Pharmacy School

Editorial

Little did we think when we originally decided to dedicate this number to Dr. Ladakis that the number will become a memorial to him. Our work on the magazine began happily, its end was saddened by his untimely death.

To the hundreds of his students, to the Sengakis family and to his nephew, we offer our sincerest condolences.

This is the second annual issue of the Apothecary. Its purpose has been stated in last year's activities, as a souvenir to the graduating students, as a medium in which to analyze and discuss our problems and to give valuable information on scientific subjects of current interest". We hope that in the years to come it shall be possible to issue it more frequently and make of it a link between the graduates and their Alma Mater bringing to them the new advances in their profession.

We wish to thank professors Abou Char, Matthes and Vorperian for their valuable help and suggestions and hope that we have kept up to the purpose of the Apothecary.

From Prof. Amin Haddad

It gives me pleasure to congratulate the members of the Board of Editors who with the intimate help of their Faculty Advisor were able to issue this second Annual number of the « Apothecary » which unfortunately is a sad number as it announces the passing away of a lovable and respectable person. On the other hand it is a rich number because it has in it the record of a life full of achievement, — the life of Dr. Triandaphyllo Constantine Ladakis, whose natural goodness and admirable character made him a powerful influence in the lives of young pharmacists who passed through his classes during his forty years of teaching. In his memory let us pledge to remain faithful to his teachings, to the virtues he planted in us, not by preaching but by example — these virtues on which are built our code of professional ethics and the fundamental principles of good citizenship. The same virtues which make for true success in life. Therefore this magazine has an important message to extend and a duty to accomplish to the benefit of the profession which we have proudly chosen as a life vocation.

Now that Beirut is developing to be an important medical center in the Arab world, the members of the pharmacy profession should keep abreast with the advances in the pharmaceutical technic and medical sciences so that they can retain for their art its respectable position among the health professions. A magazine of this kind therefore is necessary in this part of the world to convey regularly to the busy practicing pharmacist, the daily developments in the field of pharmaceutical and allied sciences. It looks to me that there is ahead of us a lot of work to do in this direction. If every one of us who saw the « Apothecary » in its healthy infancy, does his duty in the future, to spread the message that it can carry, I shall not be surprised to see in the very near future this magazine develop to become a vital organ of the Alumni, the Students and the Staff of the A.U.B. School of Pharmacy.

I like to take this opportunity to congratulate the members of the graduating class for all the successes they have attained during their School days and to wish them a very prosperous future career. I also wish to thank the staff and the student body for their cooperation in bringing the school year to a successful close. All of us can dare say to our Director « during your absence we remained faithful to the high ideals and traditions of the School of Pharmacy and all of us worked in the A.U.B. spirit of cooperation and mutual understanding ».

An Arabic Pharmacopœia For The Arabic Nations

Prof. Joseph D. Matthes

One of the first and immediate necessities of a new nation is to find a firm basis for the existence of professions and trades and for the individual so as to derive the greatest possible advantage from the natural resources of the country. Being primarily concerned with the profession of pharmacy our interest should be the development of the basis of our profession — a pharmacopœia. Until the time comes when there is a United Nations Pharmacopœia, one pharmacopœia for the whole world, it will be the duty of each nation or group of nations to publish their own standards.

Each country must have its own standards. Not only must these standards apply to substances manufactured within the limits of the country but they must apply to those imported from foreign countries so as to protect the public's health. It is to be regretted that some of the larger nations of the world allow substandard drugs and chemicals to be exported even though they prevent them from being sold within their own borders. If a manufacturer labels material FOR EXPORT ONLY he is allowed to manufacture and sell this substandard material to smaller, less well protected countries.

How does a nation get a pharmacopœia? There are many ways, some easy, some difficult, some good, some bad. The easiest but by no means the best is to accept the pharmacopœia of another nation, either as it is or in the form of an official translation. Many of the small Latin American countries do this in the form of an official translation of the United States Pharmacopœia and many of the countries of the Near East accept the British Pharmacopœia or the French Codex as their standards. The chief disadvantages to this are first, the needs of the country are not always best served by the standards of another. Secondly, unless the pharmacist is to work in a foreign language an official translation must be made. It is often difficult if not impossible to translate the meaning of chemical tests from one language to another.

A second method for the preparation of a pharmacopœia is to have a committee whose work will be the selection

of monographs from various pharmacopœias so that the needs of their country may be served and then to compile these various monographs into a single volume. By this method the needs of the country will be served, time and work are reduced to a minimum and the standards may be modified to suit the conditions within the nation. The question of translation becomes a multiple one, many languages being involved instead of just two.

A third method and the most preferable, is to have a pharmacopœial committee representing the pharmacists, the physicians, and the manufacturers of the country write a pharmacopœia. By this method the needs of the nation are satisfied because the group represents the three divisions most interested in the preparing, the prescribing and the dispensing of drugs and chemicals. The committee works in the language of the country and thus avoids any misunderstandings due to translations.

It is not an easy matter for a small nation to finance such a matter so nations having a common background, a common language and who are close geographically may pool their resources, both money and brains, and do the job together. It is because of this fact that the suggestion for a single pharmacopœia for all of the Arabic nations has been made. It would show the world that these nations can work together, that they are proud of their independence but realize the terrible burden independence places on a nation, and that they are mature enough to accept that responsibility.

If as is so often stated, history repeats itself, the first Arabic pharmacopœia may have its birth in one of the colleges of Lebanon. The idea and principle work on the first United States Pharmacopœia was done by the faculties of two of the colleges of pharmacy, Philadelphia and Massachusetts. So perhaps here in the Near East the movement may start in the American University of Beirut which has trained so many of the pharmacists and physicians of the Arabic countries. It is significant that a Hospital Formulary has already been published, perhaps it will grow.

The advantages of an Arabic pharmacopoeia for the Near East, or for the Arabic nations, to the students of pharmacy need hardly be mentioned. At the present time they must study three pharmacopoeias, the British, the French and the United States. Instead of three there would be only one. This does not mean that their work would be cut to one third but it would simplify matters tremendously. There is a pride in studying your own standards that cannot be measured.

The writing and adopting of a phar-

macopoeia is a laudable endeavor but it has no meaning unless the standards are enforced. If standards are clearly written in the language of the country, enforcement by minor officials is simplified. The use of two or more languages is a grand thing but as educational institutions develop within a country the tendency is more and more to the national tongue.

May a pharmacopoeia in Arabic be one of the first means of binding together the Arabic nations.

Prescription Survey of Beirut for the year 1946

Mamduh Abu-Hijlah and Levon M. Karamanukian — Pharm. IV

This is the first prescription survey ever carried out not only in Beirut but in all the countries of the Near East. The first difficulty we experienced was the reluctance of the pharmacists to allow us to examine their prescription books. Although we carried personal recommendation letters from Dr. Pauly to the individual pharmacists, many of them declined allowing us to examine their prescription books saying that these prescription books nearly amounted to their being account books and divulged secrets of the patients and of the business. However five different pharmacists from five different representative points in the city kindly allowed us the use of their prescription books. The second difficulty was obtaining a record of the patent medicines prescribed. Only one pharmacist of the five kept a complete record of prescribed proprietary drugs, while the rest, and this applied to other pharmacists of the city, did not record the patent medicines except when these were prescribed in addition to recipes to be compounded by the pharmacist.

Since our limited time did not allow us to collect all the daily prescriptions filled by these five pharmacist in 1946, we decided to collect all prescriptions filled during the first five days of each month for twelve months. These are the days when people have ready cash and are most likely to consult the doctors and buy medicines. At the end of the year, we found we had 4000 prescriptions, the analysis of which gave us the following results. Prescriptions were written in French, in Latin, in English, & in a mixture of any two languages. Three prescriptions out of 4000 were written in Arabic.

TABLE I

Frequency of Occurrence of various numbers of ingredients per prescription

No of Ingredients per prescription	No. of Prescriptions in which they occur	Percentage occurrence
1	1136	28.40
2	663	16.57
3	608	15.20
4	621	15.52
5	476	11.90

6	277	6.92
7	129	3.23
8	64	1.60
9	21	0.53
10	1	0.025
11	2	0.05
12	1	0.025
13	1	0.025

TABLE II

Frequency of occurrence of the various classes of pharmaceutical preparations

Types of Preparation	Occurrence in 4000 Prescriptions	Percentage
Mixtures (Solutions & Suspensions)	1170	29.250%
Cachets	569	14.225%
Tablets	375	9.375%
Eye Drops	343	8.575%
Ointments	269	6.725%
Packages	145	3.625%
Lotions	147	3.675%
Paints	84	2.1 %
Nose drops	59	1.475%
Liniments	72	1.8 %
Powders	123	3.075%
Drops (Internal)	44	1.1 %
Gargles	26	0.65 %
Ear Drops	53	1.325%
Ampoules	121	3.025%
Eye Ointments	24	0.6 %
Pastes	21	0.525%
Inhalations	17	0.425%
Vaginal suppositories	16	0.40 %
Capsules	13	0.325%
Pills	18	0.45 %
Enemas	7	0.175%
Suppositories, rectal	12	0.30 %
Compresses	6	0.15 %
Others	46	1.15 %

TABLE III

Drugs most used

The following 26 drugs & galenicals occurred more than 100 times in the 4000 prescriptions.

Drug	No of times it occurred
Distilled water	372
Sod. Bicarb.	307
Sod. Citrate	253
Sod. Benzoate	243
Sulfathiazole	233

Benzonaphthol	205
Aniodol Interne	185
Adrenalin Sol'n 1/1000	174
Petrolatum	168
Julep Gommeux	166
Pyramidon	166
Urotropine	149
Phenobarbital	149
Aspirin	145
Antipyrin	138
Quinine Hydrochlor.	137
Collargol	133
Glycerin	130
Lactose	129
Syrup of Tolu	128
Argyrol	118
Inf. Tilia	118
Solution Ammon. Acetate	110
Tinct. Belladonna	110
Sulfanilamide	107
Sod. Salicylate	98

TABLE IV

Official Drugs & galenicals Prescribed
 Out of 539 drugs & galenicals occurring in the 4000 prescriptions :
 231 are official in U.S.P. XII
 258 are official in B.P. '32 and Addenda
 316 are official in the French Pharmacopœia
 100 are not official in any of the three pharmacopœias mentioned.

TABLE V.

Ratio of Patent medicines to total prescriptions filled

1. 28.75% according to pharmacist who kept record for us for the whole year.
2. 24%) according to I week's record
3. 27%) of two other pharmacists.

Trends in Pharmaceutical Education

Prof. Charles AbouChaar

Perusal of the proposed syllabuses for pharmaceutical education in the U.S.A. and England points to one thing that has become very clear. The word « Pharmacist » as a professional title like its twin sister « Physician » or « Doctor of Medicine » has become a conservative label which no longer expresses the true qualifications of the professional person who bears it. In medicine we already have such specialists as Oculist, surgeon, Pediatric, Gynecologist, Neurologist, Pathologist, Bacteriologist, Cardiologist, etc. Due to rapid advances in the health sciences and to the increasing complexity of modern civilization, specialization in pharmacy is becoming imperative if it is to fulfill its function actively as a progressive profession. Already such titles as Hospital Pharmacist, Chief Pharmacist, Pharmacy Inspector, Control Chemist, Research Chemist, Detail Man, Retail Chemist, Prescription Specialist, have become established beside the older ones such as Druggist, Analyst, Pharmaceutical Chemist, Manufacturing Chemist, Pharmacognosist, Professor, etc. The changes in the syllabuses reflect this need for specialization.

The proposed new syllabus in the U.S.A. points to a still greater degree of specialization in the fourth year class than the last syllabus allowed. The proposal has even been made in pharmaceutical circles in the U.S.A. to raise the years of undergraduate study to five instead of the present four years. Last October, the University of London increased the years of pharmaceutical studies by one year and brought the requirements for admission up to those required for other university degrees in England. The course will now lead to the newly established « Bachelor of Pharmacy » (B. Pharm.) degree which is rated as an honors degree. The course now shows specialization in the final year and allows the student to choose any two out of the following five subjects :

1. Hospital Practice — General Pharmaceutics and Pharmacology
2. Analytical Practice — Pharmaceutical Chemistry and General Pharmaceutics
3. Manufacturing — Pharmaceutical Engineering, and Pharmaceutical Che-

mistry.

4. Chemotherapeutic Research or Pharmacological Work — Pharmaceutical Chemistry and Pharmacology
5. Pharmacognosy — Pharmacognosy and Pharmaceutical Chemistry

In as much as the M.D. degree requires a thorough broad and intensive study of the medical sciences and a touch of the humanities (philosophy, history, sociology, art, etc.) to develop and refine the doctor's personality and thus teach him not only to be a man of science but also a living person capable of properly handling his human patients, so it is with the Ph. C. degree here, the B. Sc. in the U.S.A. and the B. Pharm. of the University of London. Only the last two are now considered as university degrees. A university degree is a measure of academic attainment and is a prerequisite for admission to higher studies demanded by specialization. The courses on the undergraduate level are planned with this probability in view. If pharmacy is to hold its traditional sisterhood with medicine and gain its respect and the respect of other professions, if it is to expect an equivalent remuneration for its services, it must hold to its traditions, and keep its undergraduate training on a par with the standards adopted by the medical profession. It will thus keep the door to graduate study open and will encourage more of those with inquisitive and ambitious minds to join its ranks as it did in the 17 th., 18 th., and 19 th. centuries.

Students have often asked me the question : « Why do we study botany or why do we study pharmacognosy if we do not actually employ such in our daily practice ? » I hope I have already given you the answer. For properly meeting the standards of the profession, a sound theoretical background is a sine qua non, as essential as a thorough practical training. Without that theoretical background no spirit of inquisitiveness will have the lungs to breathe, and the doors to higher degrees will be barred. There is no end to the varied help which is asked of the pharmacist and with his university training there is no limit to the services which he can render within his profession.

A Few Only

Torkom Kalbian — Pharm III

I'm sure you will agree with me,
That the boys of pharmacy three,
Are « Characters » in a true way,
Or, at least, that's what people say

So now I shall pick up a few
whom I'll try to picture to you
And with my due respects to them,
I submit this poetic gem.

Topping my list is « Miss » ANGEL,
Who, by no means is an angel,
To prove to us, that he's a boy,
He grew a beard to our great joy.
Put his fine hair, refused to grow
He lost a bet, with great sorrow.
A thing which made his brown eyes wet
For he lost five pounds in his bet.

There is a fellow called HAIGOZ
They say that he runs on his toes,
But in the last long distance race
He certainly was a disgrace
He is handsome, with his red face
With his books he always keeps pace,
He resembles in quite a way
A Don Juan if I may say.

ABU JUDEH is what one calls
A gentleman, at parties and balls
He dances well and goes around,
Without making the slightest sound
On the campus he has a name
To be exact, I should say fame
We all alike, liked his cherry
It surely filled Dorfman's belly

Mr. DORFMAN likes to have fun,
He is so full of wit and pun
That he sometimes, irritates us
But all the same we like his fuss
He loves to tease our girls so fair,
About their eyes and their blonde hair.
He also plays the mouth organ
To please our friend, Mr. Morgan.

This Mr. M. likes to dress chic
He thinks dresses, will, do the trick
Truly enough they do the trick
With girls who like their boy-friends chic.

He never missed a film this year,
And from exams he has no fear.
The nice trip which he organized
By all of us was greatly prized

Mr. NIZAR hails from Amman
He has a most striking black tan
His whiskers are his greatest pride
Though of different length on each
[side.

He has of late polished his slang
With such phrases as « Hallo Gang »
For he has plans to emigrate
And live at the biddings of Fate.

TAWFIC FARAH is next on my list,
He could pass for a true artist
With his white shirt always open.
He is late for class so often
That we know its quarter to eight
At the entrance of our classmate.
Jumping from trams he likes so much
That, he's used to walk with a crutch.

AHED NAFFA is said to float
In salty water, like a huge boat
For his big size, that's no surprice
He thinks eating will make him wise
They also say he has a plan
For adopting into his clan
Young Kostaki, his neighbour's son
Who looks to be having great fun

I shall attempt now to describe
The voungeest of, the ARAJ' tribe,
Who is always ready to preach
To all who are within his reach
His ideals, concerning life
And how to treat your future wife
In Beit-Jala where he was born
For raising pigs, he is well known.

I hope I have told you enough
And succeeded to get your laugh
On those members of the Third year
Who to us all, are very dear
If you permit, I will tell you
Who I am in a word or two
Known as BARON I am, your friend
And my greetings to all I send.

Trends in Modern Medicinals

Prof. Amin Haddad

Within the past fifteen years many striking changes have taken place in Pharmaceutical and medical practice. Principally, these changes have had to do with great improvements in medicinal products. Equally important, however, have been the development of pharmaceutical knowledge and technic which have accompanied them. In fact, it is now evident that medical practice and pharmaceutical service have shown greater changes in these past few years than had been witnessed in any century-long period in the history of therapeutics. The only similar epoch-making developments of comparable nature were the establishment of rationalized botanical medication by Galen in the second century, and the starting of chemical therapy by Paracelsus thirteen hundred years later not to ignore the importance of the Era of Pasteur — Koch — Ehrlich — who in reality laid the foundation stone of our present day development of preventive medicine and medical treatment.

The year 1946 has witnessed a number of striking advances in the development of therapeutic agents. Many of these have represented major contributions to the development of chemotherapy, endocrinology and to the *materia medica* with which the physician and the pharmacist jointly work to preserve and prolong human life.

It is rather impossible to include all the important of such developments in the space of the two pages of this review. However, few of these discoveries and improvements can be selected to illustrate the present trend in modern medicinals. The most important group of newer therapeutic agents is, without question, the microbionics.

Penicillin : In reference to penicillin, new information appears with each passing day and it has easily maintained its position as the drug which is most frequently the subject of contributions to the medical and pharmaceutical literature of the past year. The most important advances in the knowledge of penicillin during the period under review lie in the better understanding of its chemistry, assay procedures, therapeutic action and fate in the body. Reports have shown that of the four types of penicillin contained in the commercial products now available one (Penicillin K) has a lower therapeutic activi-

ty and Penicillin G is most active. These penicillins (F, G, K and X) differ slightly in the nature of a side group attached to their common chemical nuclear structure. Crystalline penicillin became generally available in the latter part of 1946. This form has a decided advantage in being stable under all conditions.

Synthesis of benzyl penicillin (G) was announced late in 1946 and the reaction employed was used to produce hitherto unknown types of penicillin. Commercial applications remain in the future. Oral administration remains merely a possibility of the future, at least so far as the treatment of adults is concerned, although successful results have been reported from oral therapy in children. An important advance in the systemic administration of penicillin is the development of Romansky preparation which consists of a suspension of calcium penicillin in oil and beeswax, containing 300,000 O.U. per cc. which when injected results in therapeutic levels of penicillin in the blood stream lasting for 12-24 hours. On the other hand the discovery of the value of penicillin in local application directed the search for a proper vehicle a most important factor. Many formulas of vehicles for the external preparations of penicillin have been published in pharmaceutical literature.

Streptomycin : Streptomycin is another antibiotic introduced for the treatment of bacterial infection in 1946. This product received a wide publicity in pharmaceutical literature and practically all the work on the substance that has been reported comes from America, where supplies are now understood to be ample. The organisms which are inhibited by streptomycin are insensitive to penicillin and streptomycin may therefore prove a valuable complement to the original antibiotic.

In a review of this substance by Waksman in July 1946 it is pointed out that since clinical data is very limited no final evaluation of the over-all therapeutic potentialities of streptomycin would be possible at the present time. The product now available is the hydrochloride or sulfate and is stable at 150°C but solutions should be stored in a refrigerator.

Gramacidin S : Gramacidin S produced by special strain of *Bacillus brevis*

was developed at the Moscow Institute of Tropical medicine. The substance has given favourable results in the prevention of wound infections, especially by anaerobic bacteria and when bone injuries have been sustained. *Gramicidin* and *tyrocidine* are the constituents of the antibiotic *tyrothricin* now available for topical use as a local anti-infective.

Benadryl : There is a considerable and growing body of evidence to support the view that many of the symptoms of allergic reactions are due to the liberation of *histamine* (or « H » substance). Benadryl (P.D. & Co.) is one of these synthetic antihistamine compounds. This product appears to combine considerable effectiveness with low toxicity. Favourable results have been obtained with it in the treatment of chronic urticaria, contact dermatitis, physical allergy, and some cases of hay fever or asthma. More recently a new drug, *Anthallan* (a complex organic compound) was announced and received a great deal of publicity as providing lasting relief from hay fever and from the misery of a chronic hypersensitive nose.

Protein Hydrolysates : An extension of the clinical investigations with amino acid mixtures and *protein hydrolysates* continues to demonstrate the usefulness of these preparations in a variety of cases. Under circumstances where natural food cannot be ingested or ingested in quantities insufficient to replace increased nitrogen loss due to disease, the I.V. administration of these preparations serves to maintain nitrogen balance and to restore the tissue proteins.

Methionine : Clinical reports have indicated that doses of 2 gm. of methionine four times daily are useful to prevent liver damage when hepatotoxic compounds such as carbon tetrachloride have been given. It is now recommended in the treatment of liver cirrhosis and liver damage associated with nutritional deficiency.

Folic Acid : Synthetic folic acid has now been used in the treatment of macrocytic anemia and pernicious anemia. This factor was first obtained as « Vitamin M » in an eluate from a carbon adsorbate of liver or yeast ext. It seems probable that folic acid is not itself the active principle of liver extracts, since some cases of pernicious anemia have been found to respond to parenteral liver extract after failing to do so with folic acid.

Antimalarials : Work continues on the development of substitutes for quinine

in the treatment of malaria and a compound having the chemical composition of new antimalarial drugs include *Pen-taquine* or SN 13276 believed a positive cure; *Aralen* or SN 7618, declared better than atabrine and quinine ; and *Paludrine* « 4888 » a British substitute for quinaeacrine but not related to it chemically.

Curare : The Chemistry of curare has been better understood and the development of the use of *d-tubo-curarine chloride*, as a supplement to the administration of anesthetics to secure muscular relaxation, is an important advance in anesthesia. It has been found most useful in abdominal operations. Its use is not without danger and neostigmine appears to be an effective antidote to curare and should always be on hand when curare is used.

Endocrines : The most promising development has been the use of *thiourea-cill* in thyrotoxicosis Thiouracil is a heterocyclic derivative of thiourea (the sulfur analogue of urea). In the field of synthetic oestrogens further rivals of stilboestrol continue to appear. The monomethyl ether of stilboestrol has been admitted to the N.N.R. under the name of *monomestrol*.

Sulfonamides : The sulfonamides are being investigated in search of newer and more valuable agents. The favourable results in the investigations carried with *Phthalylsulfathiazole* may place this product among those sulfonamides used as intestinal antiseptics. It is reported that this compound has from 2 to 4 times the bacteriostatic activity of succinylsulfathiazole in the intestine.

The topical application of sulfonamides has been the subject of much discussion during the past year. It is reported that oil-in-water emulsion bases are the best vehicles for local administration of sulfonamides.

Dihydroergotamine : A new drug, closely related to ergotamine and known as dihydroergotamine or « D.H.E. 45 » has been investigated. Clinical trials indicate that this new ergotamine derivative promises to be a significant advance in the treatment of migraine.

Conclusion

In conclusion it must be acknowledged that this review is not intended to be a complete one in any way as it includes only a few high spots of the therapeutic advances of the last year. The real incentive for the writing of this short review is to help us realize the new role that will be held by Pharmacy and the pharmacist. The poly-scientific aspect of these newer trends indicate clearly that the pharmacist of the fu-

ture will not be solely concerned with the compounding of physician's prescriptions, preparing pharmaceutical preparations, and selling of proprietary articles, but will be handling and supplying products, the scientific nature of which is so complex that physician who employs them must of necessity rely upon his pharmacist for the technical

knowledge and guidance required to use them properly and effectively. Therefore pharmacists may feel certain that the coming years hold for our practice a period of tremendous responsibility — a challenge — and an opportunity. Are you awake to it and are you honestly preparing yourselves for it?

National Health Insurance and Social Security in the United Kingdom

Ovadia Angel — Pharm. III

Beginning next year, compulsory health service will be practiced in the United Kingdom (England, Wales and later Scotland). It took 36 years to introduce a social security program to which all people will be entitled to its benefits.

Social security with medical care originated in Germany and the first document was signed by William I on Nov. 17, 1881. Mr Lloyd George studied the German plan and presented the first National Health Insurance Bill on May 4, 1911, which lay the foundation to the new plan to be executed in 1948.

In the old scheme wages per year restricted the number of people under the National Health Insurance plan, and Public Health Department reports 22,000,000 members in 1945.

During the years 1941-46 plans were prepared to provide social security for all the nation: Beveridge's report of 1942, Nuffield Provincial Hospital Trust reports of 1945 and 1946, and other plans. The National Health Insurance Act of 1944 transferred all health income functions except medical benefits to a new agency: Minister of National Insurance. In 1946 National Health Insurance Bill was passed in both houses of Parliament providing social security for England and Wales. This bill is based on the Beveridge report and provides social security for all the people. This short historical data of the new National Health Service Bill shows that behind it stood the Liberal, Conservative and Labor governments. Each party introduced changes to increase the number of benefited persons and provide better care and security for the English people. Forty four million persons will participate in the new plan.

The plan: All the services in the plan or any part of it are to be available to every person without limitations based on financial means, age, sex, employment or vocation, or area of residence;

after paying weekly contributions.

It provides A. Cash: For sickness and invalidity, unemployment, maternity, survivors and old age benefits. B. Service free of charge:

(I) Hospital and specialist services, including mental hospitals, sanatoria, maternity accommodation, treatment during convalescence, medical rehabilitation and other institutional treatment. This covers inpatient and outpatient services, the latter including clinics and dispensaries operated as part of any specialist service. The advice and services of specialists of all kinds are also to be made available, where necessary, at health centres and in patient's home.

(II) Health centers and general practitioner services — i.e., general personal health care by doctors and dentists whom the patient chooses. These personal practitioner services are to be available both from new publicly equipped health centers and from the practitioner's own surgeries.

(III) Various supplementary services, including midwifery, maternity and child welfare, health visiting, home nursing, a priority dental service for children and expectant and nursing mothers, domestic help when needed on health grounds, vaccination and immunisation against infectious diseases, additional special care and after care in cases of illness, ambulance services, blood transfusion, and laboratory services.

(IV) The provision of spectacles, dentures, and other appliances, together with drugs and medicines — at hospitals, health centers, clinics, pharmacists shops and elsewhere.

Other points of interests are:

Patients are free to select their own practitioner. Every qualified pharmacist will have the right to join the new service. The executive council of each

area will publish a list of those who join the new service and a patient will be able to obtain supplies from the registered pharmacist, or from the health centers where dispensing service is provided.

Dispensing at the health centers will be done by qualified pharmacists. Except for rural areas, practitioners will not dispense medicines...

Refresher courses are to be provided for practitioners, dentists, opticians and pharmacists.

Cost of plan is estimated to be £ 152,00,000 per year.

Weekly pay : — For employed persons ranges from a minimum of 2s. 2d. to a maximum of 4s. 7d. Employer pays for employee a minimum of 1s. 9d. and a maximum of 5s. 9d. Self-employed persons pay a minimum of 3s. 1d. to a maximum of 6s. 2d. Non gainful workers a minimum of 2s. 3d. to a maximum of 4s. 8d. Exchequer supplies a minimum of 4d. to a maximum of 1s. 1d. per person. Minimum figures are for women under 18 years old and maximum figures being for adults earning more than 30 s. per week.

The plan operates under the direction of the minister of Health, advised by central Health Council consisting of 41 members 2 of which are pharmacists.

Pharmacy and the New Scheme :

Pharmacists play a role in the new scheme being members of the central Health Council and pharmaceutical advice will be put at the disposal of the Health Centers and hospital management committees.

« Dispensing by a Pharmacist » in Health Center dispensaries provides maximum attention to drugs and medicines purchased by patients.

Refresher courses will keep the pharmacists with the latest developments and new methods in his field of work.

« Where shall I get my medicines ? at the health centre dispensatory, at the pharmacist's shop ? In both places there is no charge. The service given by the retail pharmacist will double under the new scheme, and a good deal of dispensing work will be done.

Proprietary medicines will be prescribed when necessary only after having been examined as to content and action. This provides a safeguard in the use of proprietary products and if they are good the pharmaceutical industry will not suffer a big loss.

This is an economic plan that renders service as good as science can provide to a whole nation covering all classes and ranks.

Nylon is one of the true thermoplastic synthetic materials (plastics) which approaches protein structure in its chemical composition. Nylon is a generic name which applies to all superpolyamides (polymers of high molecular weights greater than 10,000). It is possible to make a very large number of Nylons having different properties.

1. The polyamides obtained from a dicarboxylic acid (as Adipic or Sebacic acids) and decamethylene diamine are suitable for fibers, yarns and textiles. All their amide groups are — CO — NH — . 2. Those made from a dicarboxylic acid and decamethylene monomethyl diamine $\text{H}_2\text{N — (CH}_2\text{)}_{10}\text{ — NHCH}_3$ have definite rubber-like properties and some of their amide groups are $\text{— CO — N (CH}_3\text{) —}$. They are suitable for films, raincoats etc.

In 1928 the Du Pont Company started a broad program of fundamental research to learn more about the nature of polymerization. The first polymers obtained were superpolyesters which, when molten, could be drawn out as a long fiber which could be extended further when cooled. It gave a poor fiber as compared with cotton or silk, did not have much elasticity and was softened by hot water. Research showed that the superpolyamides had higher melting points than the superpolyesters and eventually an excellent fiber (Nylon) was produced. The commercial production of Nylon yarn was started early in 1940.

Both the dicarboxylic acid (ex. Adipic acid) and the diamine are obtained from benzene.

(a) Adipic acid is obtained by the reduction of benzene to cyclohexane and direct oxidation of cyclohexane into adipic acid.

(b) The diamide is obtained from benzene by converting it first to adipic acid then changing it to Adipamide and hydrogenating to 1,6 — diaminohexane.

(c) The superpolyamide is then made by heating the salt formed from the adipic acid and the 1,6 — diaminohexane and vaporizing the water formed formed by the condensation.

The length of the polymer can be controlled by the temperature, pressure and

time of the condensation reaction.

Properties of Nylons : At ordinary temperatures Nylon exhibits good resistance to oils, grease and organic solvents, except phenol, cresol and acids. It is readily desintegrated by mineral acids. Exposure of Nylon hosiery or bags to lab. fumes of HCl will ruin them in a short time. Nylon tends to yellow when exposed to light or oxygen. Its rate of deterioration on exposure is about the same as that of other textiles. It is not softened by boiling water or heated steam. The absorption of moisture (7.5%) is less than that of other common textile fibers.

Untreated Nylon possesses a luster much greater than that of silk it can be dulled by incorporating a finely divided white pigment. Colored pigments can be added to the molten mass, but Nylon textiles are usually dyed after being formed.

Industrial applications : The commercial modifications of Nylon resins have melting points varying between $250^\circ\text{—}315^\circ\text{C.}$ and the softening point about 235°C. They can be molded either by compression or injection molding machines.

Nylon monofilaments are made by extruding the molten polymer through orifices of any desired diameter. The filament solidifies as soon as it comes in contact with cool air. These monofilaments are widely used as bristles for various brushes, tennis strings, fish lines, surgical sutures and hose).

Nylon yarn is composed of 30-40 or more very thin filaments which have been obtained by forcing molten Nylon through tiny orifices. As the individual filaments are brought together they are twisted a few turns per inch in order to form the yarn. The properties of the yarn (as tensile strength and elasticity) are greatly improved by stretching it while cold to 4-7 times its original length. Nylon yarn has been used for the manufacture of hosiery, dress goods, lingerie, ropes and parachutes.

A 50-50 mixture of synthetic rubber (Neoprene or Buna) and Nylon resin made by dissolving rubber in the molten polymer and adding a suitable plasticizer yields a film which is more resistant to moisture and oils, it is used for raincoats, felts, bags etc.

Nylon wool is made by cutting filaments, compressing them into bales and heating with vapors of steam or menthol. This process sets a crimp in the staple fibers similar to that of natural wool. The crimp is stable to dryness, moisture and heat.

Specifications : (A.S.T.M.)

(1) Gauge : Thickness, due to the diameter of the fibers, is usually expressed in Thickness Gauge. It indicates the parts in thousands of an inch. Gauge 51 means the textile is 51/1000 of an inch thick.

(2) Denier : is the weight in grams of a fiber 900.000 cm. long. Denier 32 means a fiber of which 900.000 cm. weigh, 32 grams.

Mines of Common Salt in Poland

Urszula Zalot — Pharm. III

About 200 thousand tons of common salt are mined annually from great underground deposits in some parts of Poland. It is mostly consumed locally for industrial purposes and a part is purified by recrystallization for chemical uses.

Nellie Allen in her book « The New Europe » describes one of these beautiful mines.

A few miles south east of Krakow is the town of Wieliczka built on the roofs of the great salt cavernes and deposits. The mine caves are 300 meters below the ground and can be reached either by elevators or by a staircase carved out of the solid salt. As we wander through the great galleries, with the roofs and walls all of the glistening salt, we wonder how such great tunnels and rooms have ever been made. It has taken seven centuries to do it.

The main gallery leads into a magnificent ballroom. A real ballroom in a mine, about 100 meters long and 30 meters high, with a grey ceiling, glis-

tening pillars, walls and chandeliers all of hard crystalline sodium chloride. Statues carved from the chemical, representing Vulcan, Neptune, and historical persons, ornament this beautiful room with a throne erected at one end. Real balls are held here from time to time.

A short distance from the ballroom is a cathedral with an organ, a high altar and its crucifix, pillars and statues of saints made in the white mineral, with some of ruby-red blocks. Leaving the cathedral, one walks on through several tunnel-streets into another room containing two immense pyramids.

A thrilling adventure is a sail on the black waters of the lake far in the depth of the mine. The boat holds about 25 persons and is pulled along by means of ropes. The water is a strong brine. Torches fastened into the crystal walls throw a weird light out over the black water and the splashing made by the boat is echoed from wall to wall.



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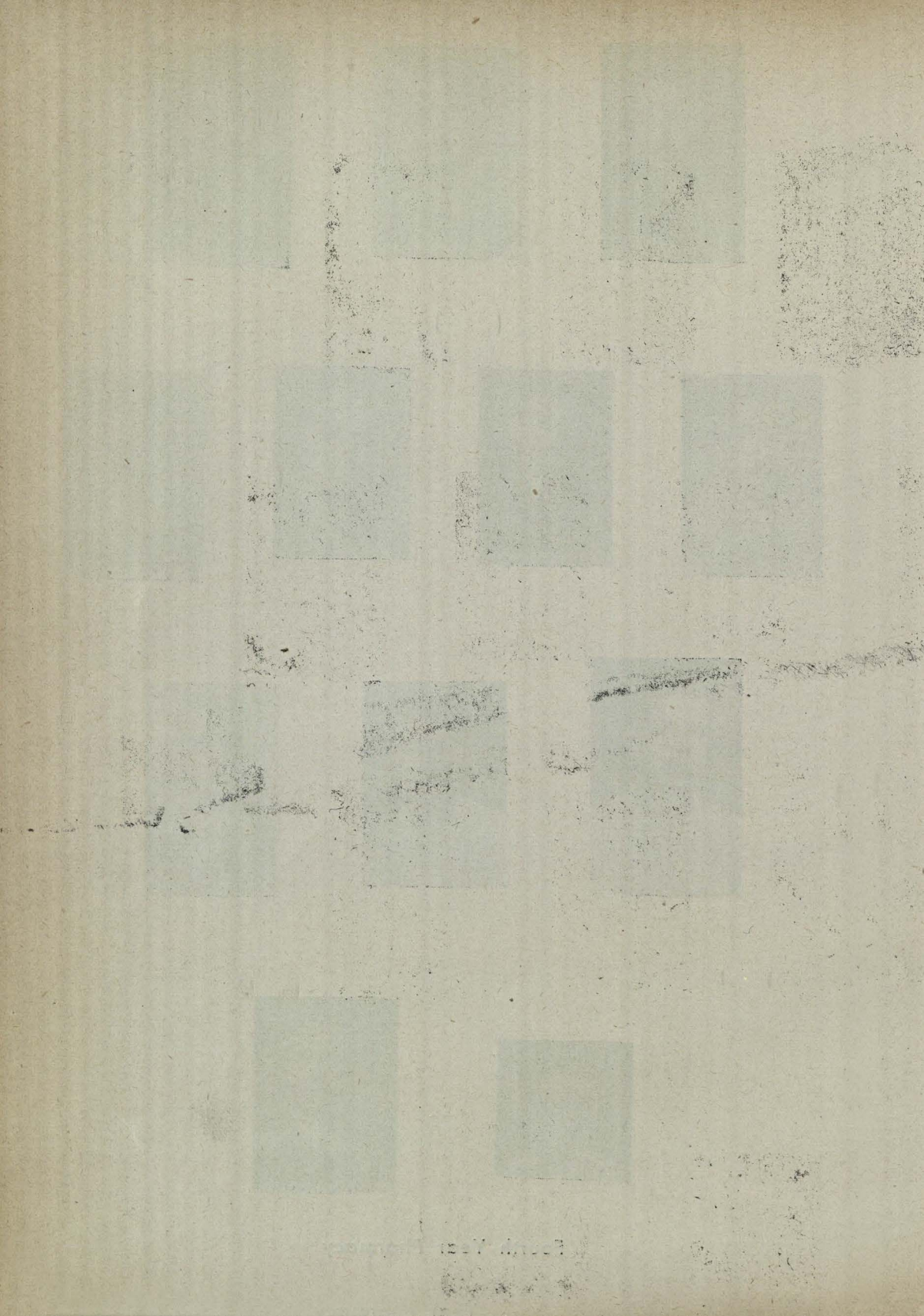
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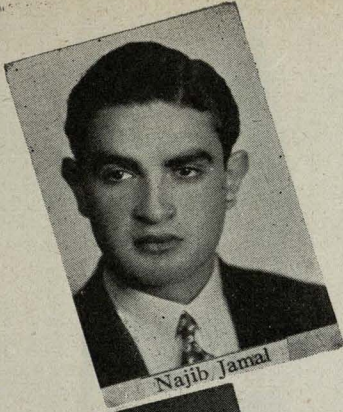
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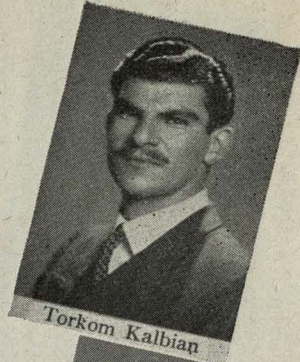




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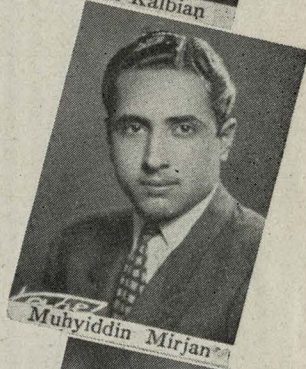
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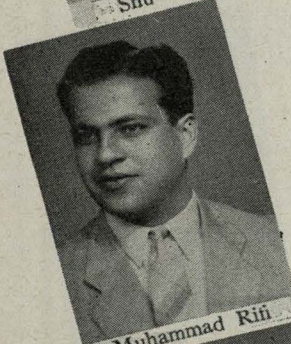
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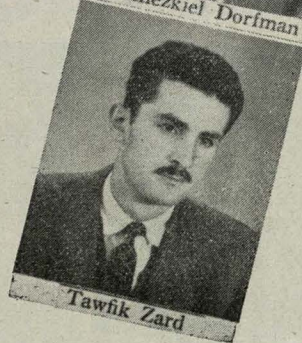
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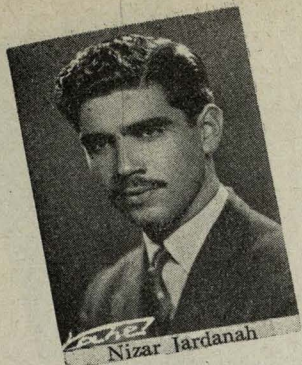


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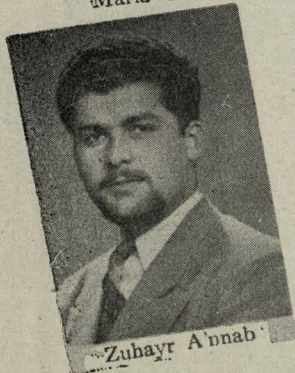
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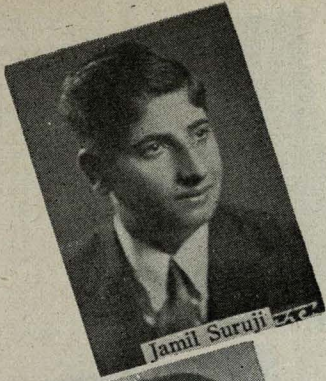


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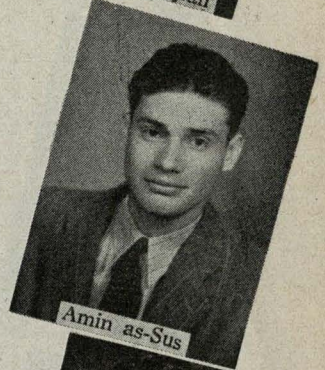
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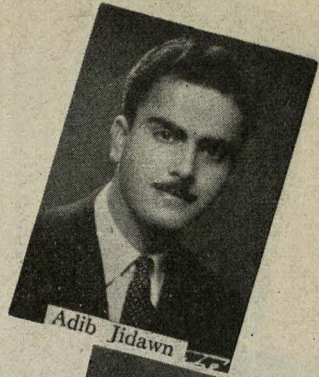
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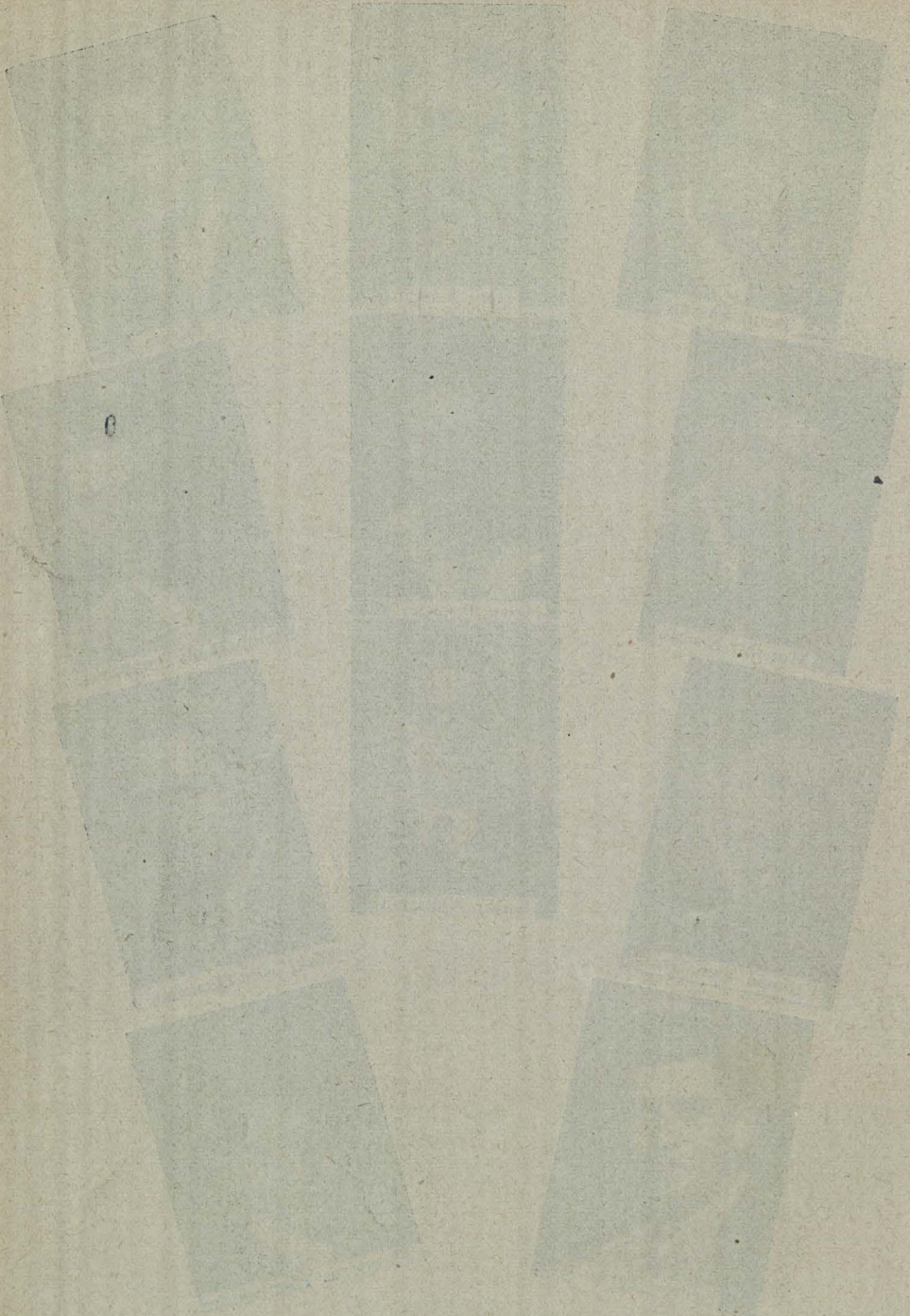


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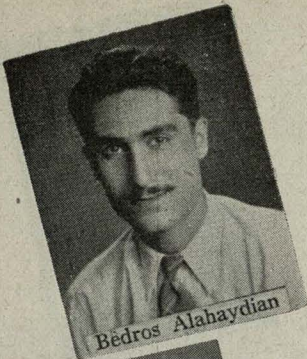


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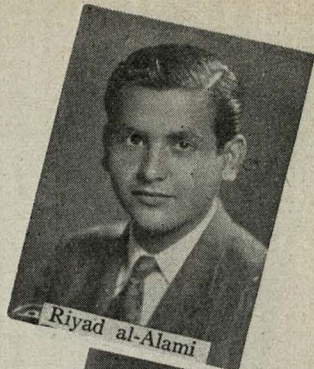
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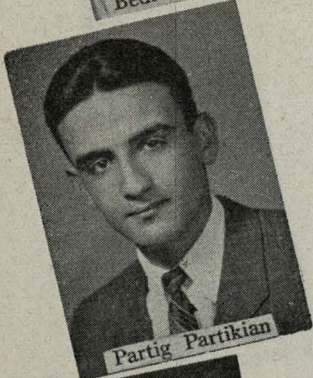
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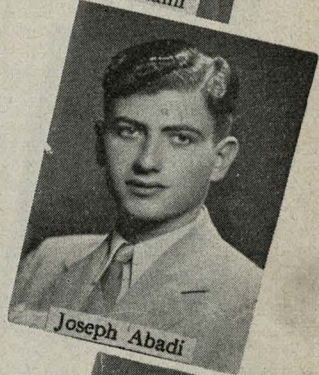
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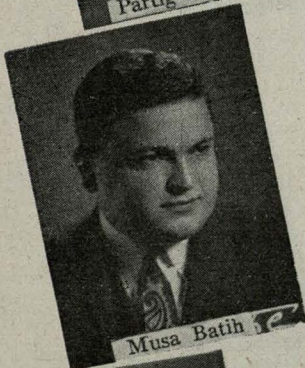
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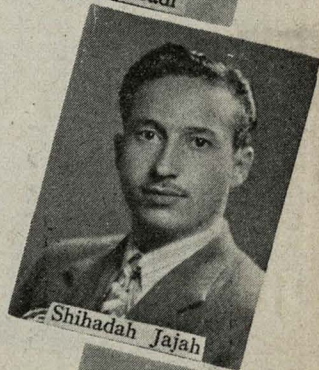
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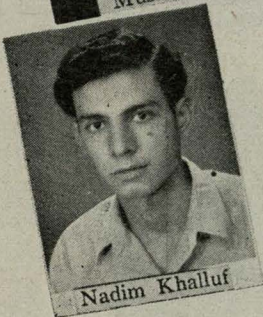
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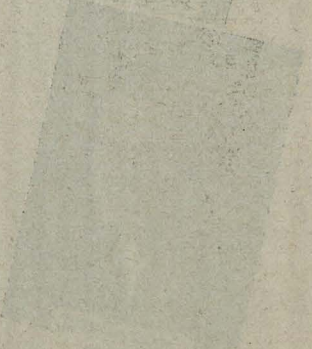
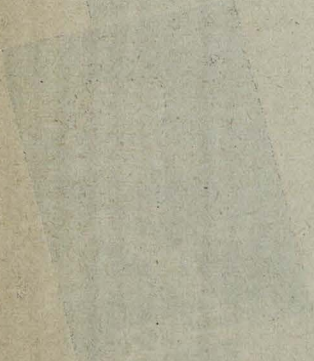
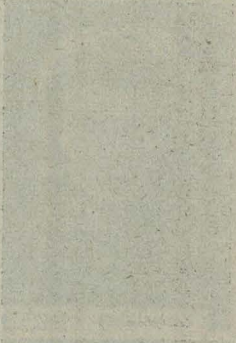
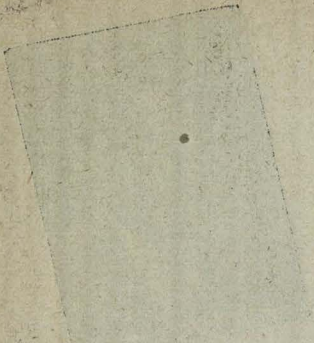


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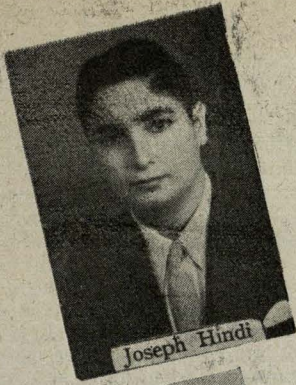


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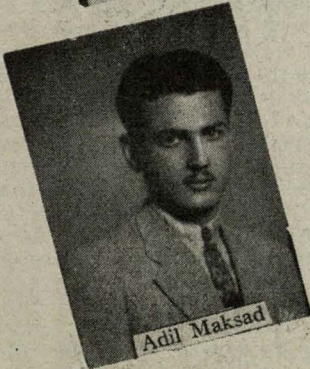
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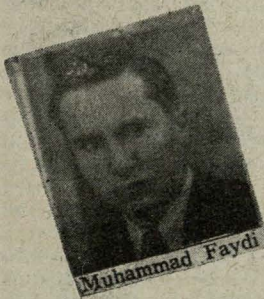
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THE YORK SHIRAZ

A general Survey of Chromatography

Mr. Edward Vorperian

It would be rather a difficult and unsatisfactory task to define chromatography, because no matter how long a sentence may be chosen for its definition, it would lag behind in reflecting a full representation of the scope of chromatography. Nevertheless, just to introduce the reader to the subject, I venture to state that the basic principles of chromatography are founded on an adsorption phenomenon. Furthermore, to be a little more specific, this branch of experimental science, deals mainly in detecting and separating the components of a mixture in solution by taking note of the differences in their adsorption coefficients.

To illustrate this, let us consider a solution of two pigments each possessing a different adsorption affinity. Therefore, it is only natural to expect that, each component should manifest a different degree of activity towards the same adsorbing agent. The pigment with the higher adsorption coefficient would be adsorbed first; and next the one with the lower adsorption coefficient. At this point, it is important to mention the fact that, no bifurcation of the starting material can be brought about, if the adsorbent is added to the solution containing the original components, because, the mixed adsorbates thus received, would require as complicated a process for their separation, as the starting solution itself. Yet, by introducing a slight modification in the procedure, we would be able to tackle the problem and attain our major goal without much intricacy. The suggested change would be to keep the adsorbent stationary, packed in a fixed vertical glass tube, and percolate the pigmented solution through it. By this new arrangement the phase of the experiment would be completely changed and we would then see the two pigments undergoing separation. The component with the highest adsorption activity, forming a zone at the top of the adsorbent column, while the component with the next highest adsorption coefficient forming a layer beneath it.

Therefore, chromatography has no interest in the special selectivity of an adsorbent towards a certain particular adsorbate; but its main concern is rather the consideration of time and space relationship between the solid and liquid phases. Thus chromatography as

a whole is a short cut from all painstaking and time consuming adsorption processes, where, the selectivity of the adsorbent was considered to be of prime importance; rather than the adsorption affinities of the individual components in solution.

Back in 1906, Tswett, a Russian botanist, observing the behaviour of plant pigments, conceived the idea of this ingenious process. During his time, the chemical world was in a clash in defining the real nature of chlorophyll. Some authorities claimed it to be a pure compound of complex molecular structure, while others firmly believed in its composite nature. This conflict set one of the foremost leaders in enzyme chemistry, Willstater, to prepare adsorbents of greatly enhanced selectivity to achieve an astonishingly fine degree of differentiation. On the other hand, Tswett, in his quiet laboratory, performed his fundamental experiment. He first extracted the green leaves with petroleum ether, and poured the extract thus obtained, through a vertical column of finely powdered calcium carbonate. To his surprise, the apparently homogeneous green extract, underwent separation as the solution gradually strained through the column. At the top of the column a yellow ring appeared immediately, and beneath it two separate green layers which later proved to be chlorophyll band a respectively. Still further down, three other yellow components traced their magic presence in distinct zones, which they proved to be. Violoxanthin, xanthophyll, and carotene. With a great joy in his heart, Tswett turned to his diary and wrote: " ...like the light radiations in a spectrum, so is a mixture of pigments separated on the calcium carbonate column, into its constituents which can qualitatively and quantitatively be determined".

Financially being broke, Tswett's comprehensive work "Chlorophylls in plants and animals" was published in isolated and unscientific papers not available outside of Russia. Consequently, his world-concern observations were condemned to remain unnoticed and even tacitly doubted by his people. Two decades later in 1931 it was rediscovered by Kuhn and soon later, chromatography was successfully introduced into

the chemical world by Winterstein and Lederer.

Although the phenomena manifested on the adsorption columns are understandable yet, a deeper insight into the problems of the concepts involved in the process require a thorough knowledge of the physicochemical theory of adsorption. The space granted, does not allow me to attempt any concise discussion from this latter point of view.

The scope of chromatography, embraces many fields of science. As applied to biochemistry it proved to be of prime importance, in the discrimination and separation of isomeric aminoacids and proteins. Besides it has a wide application, in the preparation of most biological products such as enzymes, hormones and vitamins which are highly labile in their nature and are easily destroyed by slight variations of pH, temperature and salt concentration, which are in common use in the methods of isolation.

To the analytical chemist, it is of great help in testing the homogeneity of substances under consideration and establishing the identity or non-identity of two products involved, thus helping him to draw reliable conclusions, or strictly controlling the commercial products from any possible adulteration.

To the manufacturing Chemist, chromatography helps a great deal in the separation and concentration of products occurring at great dilutions in a natural source. It provides an easy and cheap method for the purification of a technical product from contaminants, so as to bring about a high degree of purity to comply with pharmacopoeial requirements.

Nowadays, there is a whole system of analytical methods, both organic and inorganic being developed for commercial and technical purposes. Merz and Franc, prepared a complete series of standard chromatograms for all galenicals prepared according to the German Pharmacopoeia; and the estimation of alkaloidal contents of some of them, was a matter of measuring the thickness of the corresponding layer under ultra violet rays, and the whole process of manipulations would not take more than 15 minutes. A commercial product,

e.g. Saffron, when adulterated with flowers calendulae can easily be detected, by developing a chromatogram and comparing it with that of the genuine product. This simplified process would enable the analyst to issue a clear cut report within 10 minutes of time.

One of the recent developments of chromatography, which may be of special interest to our second year pharmacy students, as applied to inorganic qualitative analysis, has been developed and recommended by Lange and Nagel, and microtube method proposed by Hesse. In both cases a molar or a dilute solution of the unknown serves the purpose better. The procedure is very simple. It consists of pouring the solution to be tested through a set of different adsorbent columns, followed by the percolation of the developing reagents, and then detecting the components by the specific colored rings developed on the chromatograms. The adsorbents in common use are: alumina, silica, barium sulfate, tin dioxide, beryllium oxide, etc. for cation; bakelite and other new plastics for anions. The choice of any of the above mentioned adsorbents, would be indicated in the procedure to be followed. The ions are grouped and named by the adsorbing agents rather than the class representative cation. To illustrate, let us consider a solution containing: ferric, cupric, cobaltous, silver, lead, zinc, cadmium, and manganous ions. First, by passing the solution through the Alumina column, known as Alumina Group, the Ferric, cupric and cobaltous ions would be adsorbed and developed by $K_4Fe(CN)_6$ reagent. The layers formed in a descending order would be: ferric blue, cupric brown and cobaltous green. The percolate from the alumina group, passed through silica, known as Silica Group, Silver, lead, zinc, cadmium and manganese are adsorbed and chromatographed by ammonium sulfide solution. You would then identify the following layer starting from top: Lead black, Silver gray, Zinc White, Cadmium yellow and Manganese slightly reddish.

Thus Chromatography is bound to become the method of choice in analytical procedures wherever it is applicable.

Abu 'Ali Al-Husain Ibn 'Abdallah ibn Sina, known in latin as Avicenna, was born in 980 A.D. at Afshana, near Bukhara, spent most of his life in Persia, and died in Hamadhan, 1037 A.D. All historians agree to the fact that Avicenna was a Moslem Persian, although LaWall believes him to be of a Nestorian Christian origin. He was an encyclopedist, philosopher, physician, mathematician and astronomer. As Sarton said, « Ibn Sina was the most famous scientist of Islam and one of the most famous of all races, places and times ; one may say that his thought represents the climax of mediaeval philosophy ».

He was unquestionably a man of a high order of mental ability, for at the age of ten he learned the Quran by heart. When 16 years old he practiced medicine and taught it, and at the age of 21 he wrote an encyclopaedia of all the sciences, excepting mathematics. As a result of over-work, he died at an early age, and was buried at Hamadhan.

The writings of Avicenna were numerous and in many cases voluminous, some of his major works comprising as many as 20 volumes. A list of his books, given by al-Qifti, included 21 major and 24 minor works on philosophy, medicine, theology, astronomy, geometry, philology and the like. Another list, given by Brockelmann, comprises 68 books on theology and metaphysics, 11 on astronomy and natural philosophy, 16 on medicine, and 4 in verses, 99 books in all. Some historians indicate that in all probability the quatrains ascribed to 'Umar Khayyam were in reality the work of Avicenna. Umar is stated to have post-dated Avicenna by a century.

Among the 99 books he is said to have written, the most important are the Qanun (Canon) and a treatise on cardiac drugs. The Qanun, described by Sir William Osler as the medical bible for the longest period of time, is of about one million words and contains the whole of ancient and Muslim knowledge in medicine. The book, because of

its formal perfection and clearness, as compared with the obscure writings of Galen and Hippocrates, remained supreme for six centuries. The entire theoretical and practical medicine with all its special branches is brought into a uniform system in the Qanun. A perfectly uniform product is created without an equal of its kind in the entire history of medicine.

The Qanun is divided into major and minor sections ; the whole being divided into 5 books of which the first treats of general principles ; the second of simple drugs arranged alphabetically ; the third of diseases of particular organs and members of the body, from the head to the feet ; the fourth of diseases which, though local and partial in their inception, tend to spread to other parts of the body, such as fevers ; and the fifth of compound medicines.

Avicenna's work in medicine formed half the medical curriculum of European Universities in the latter part of the fifteenth century, and continued to be so up to about 1650 A.D. The Qanun is still in use in many countries of the Near East and North Africa.

Avicenna first gave silver internally and introduced the gilding and silvering of pills, not for improving their appearance, but to enhance their therapeutic effect, and he distinguished between fixed and volatile alkalies. He was acquainted with many chemical substances and was the first to discover the sweetness of the urine of diabetic patients.

Most of the work of Ibn Sina was an assimilation of the sciences of the past and their representation in an Islamic form ; he showed little originality in his treatises. His fame in mediaeval medical Europe rested on the Graeco-Arabic system of medicine. He attempted to reconcile the doctrine of Galen with that of Aristotle.

In conclusion, the world should be very much grateful to Avicenna and his contemporary scientists, because they played a great role in the preservation of most of the ancient sciences.

Quo Vadis ?

Barkev mugurditchian and John Shakarjian — Pharm. II

A quick glance at the standing of the pharmacy profession today in the different parts of the world, reveals the fact that it is in its worst form in the countries of the Middle East. Of course exception is made of the U.S.A. where the pharmacy is sometimes a refreshment shop.

While in Europe Pharmacists are acknowledged and treated with due respect, the case is different in our part of the world.

It is a painful fact that the pharmacist in our country, as a man, is incapable of assuming a leading role in his society.

Is it because the pharmacy profession here is on the decline ? A critical conclusion but is nevertheless true. With the ever increasing accumulation of proprietary drugs of all kinds, with the unethical competition of the uncertified druggists, with the indifference of the government towards such abuses and with the ignorance of the people, one is lead to believe that this undoubtedly is the case. But in reality the fault lies mainly with us.

Pharmacy is a profession of honesty and integrity and such a profession cannot but be practiced by honest and educated men. A student of Pharmacy who is the future pharmacist should be honest because his is a profession of confidence. In the school the honesty of the student should be taken very carefully into account and he who fails in this major requirement should be definitely discouraged in choosing Pharmacy as a career. The administration

should be very strict and react with vigor against any irregularities of such a nature. *To be honest pharmacists, honest students are needed.*

To assume a leading role in his society it is of the utmost importance for the pharmacist that he be a cultured man, but in many cases he is not. The pharmacist has not been prepared to be a leading member of the society. He is not, because he does not have the desiderata of an educated man. Usually he is nothing but a person who has specialized in compounding drugs and who intellectually is no more advanced than a high school graduate. A secondary education is not enough to make the pharmacist an all round man. How can we assume then that he will be able to shoulder such a heavy responsibility ?

To grasp intelligently the events around him and analyze them in the proper way, college education is essential. It is true that education is not only the academic training we get in school. But a college education is a platform from which the future pharmacist can have a wider outlook on life, a more comprehensive view of his society and environment and what is more, a wider perception of his own self.

We believe these points will contribute in raising the now-declining status of the pharmacy profession. It is men that make pharmacists. Let the school prepare men, and as Dr. Pauly says : " Our country needs no pharmacists, what she needs is educated pharmacists " .

A promising group of compounds which may abolish infection, due to air-borne bacteria, during surgical operations.

Within the past decade, there has been an interesting return to an idea once discarded. It was in 1869 when Lister, the eminent English surgeon and father of antiseptics, attempted to create in the operation room an atmosphere free of microbes by means of a 5 % spray of carbolic acid in water. The efficacy of that famous phenol spray could be questionable due to the fact that the devices used produced only coarse particles which settled rapidly and consequently did not produce a strong germicidal action on the air bacteria.

Recently, there has been an awakened interest in the possibility of disinfecting the atmosphere. In 1937 experiments have led to certain conclusions about the prevention of air-borne infections by bactericidal aerosols. Their action has been pronounced in confined areas where they have been sprayed to persist as a mist for at least a time taken for one air change. Hence, it has been essential to find an aerosol which kills pathogenic organisms at a rate quicker than the rate of air turnover.

The killing rate varies according to many factors, out of which the following are the most important :

A. Nature of Germicide : The six most recommended germicidal aerosols are Resorcinol, Hexylresorcinol, Propylene-glycol, « S2 » Sod, hypochlorite and organic smoke. Resorcinol has a high killing rate but does not persist long, whilst hexylresorcinol has a slow killing rate, but persists for a long time. So the latter is more suitable when air changes are infrequent as it may be the case in winter, whilst in summer, where the reverse is usually true, resorcinol is the better agent. Propylene glycol is an effective, colorless, odorless, nonirritant liquid aerosol. Moreover its toxicity is quite low, but, the fact that its action is intimately related to the percentage of humidity in the air, in a way which is rather strange and unexplainable, gives it a limited use. A high humidity neutralises propylene glycol action and a low humidity masks it. However,

« S2 », which is a 10 % solution of Hexyl resorcinol in propylene glycol. 0.05 % of sulphonated lorol (a wetting agent) is the most promising aerosol.

Sod. Hypochlorite is a cheap, clean, nicely smelling compound when sprayed in dilute concentrations. It has a high disinfecting power, but it is less persistent than the resorcinol derivatives. In cases where quick disinfection is required, organic smokes are the most suitable. They are produced by saturating a card-board with pot. nitrate and the disinfectant, then burning the whole thing. Organic smokes give a very high lethal power.

B : Concentration of the Germicide : To find a concentration where the chemical is effective and still is nontoxic to man is the thing the scientists are after. Resorcinol and hexylresorcinol are advocated in a concentration of 1 gram per 1000 m³ of air. Sod. hypochlorite in 1 c.c. of one percent sol. per 40 million c.c. of air and propylene glycol in 1 gm. per 10 million c.c. of air.

C : Size of dispersed particles : The size of the dispersed particles looks to be the most important point in having satisfactory results with aerosols. The particles are to be small enough so as to form with the air a colloid in mist or smoke form. Their size is not to exceed 1 micron in diameter and not to be so small as to form only vapors. The ultra microscope can be used to determine the size of the particles.

Various devices have been applied and suggested for the proper flocculation of aerosols.

When the aerosol is in a liquid form, atomizers with certain modifications are used to produce a mist-like colloid with the air. Good results are obtained by using either a hot plate or a suitable piece of apparatus for generating mists of Resorcinol and hexylresorcinol. A hand-size aerosol dispenser containing highly compressed Freon gas, (fluorochloro ethane or methane derivative) a very concentrated extract of pyrethrum and some sesame oil is used as an automatic means to spray aerosols against mosquitoes. D.D.T. has been recently produced in such similar bulbs. Smokes are produced in the way it is mentioned before.

Aerosols are becoming more and more important in the fields of surgery, where aseptic conditions are required for surgical operations and in Bacteriology, where an atmosphere free of con-

taminating micro-organisms is desired to produce Bacteriological products such as vaccines, serums, antitoxins etc. As insecticides, their use is developing quite rapidly.

Pharmacy I Students (46-47)

Raymond Karam — Pharm. I

Our class is full of strange queer
In other words a cocktail of races [faces
Of mates who for study left the Holy [Land
And others who work for the future of [Poland

I'd like to introduce every one in person
So please behave, it's a serious sermon.
The rules of ethics, teach us ladies [first —
Let's stick to them, though they make [one burst.

In the early morning you can always [see
Two beautiful young ladies, these are the [B.P.
They are wise, they never sit at Uncle [Sam
They are as friendly as Mary, and her [lamb.
Miss Kraucka often talks of matters as [romantic
Yet I can't understand, she's very [fantastic
For pool Adel who beside her sits
Is served with a frown, he is not fit.

Mr. Maksad is a busy man
The Welfare's league ? Oh he is the [chairman
He always thinks, he always plans

Acting as a personality, he certainly [can
He once sent Bateh's name for high- [jump
You're an idiot, Adel ! He'll do better [on a pump.

Our class is not devoid of a titch
Hey Faydi, stand up, you can't see him, [I bet
He's got a loud voice, full of majesty [and threat
Though B from P he knows not which [is which.

Mr. Sarkis is fond of being late
For many teachers, he is their fate
When all the absences are checked
Then, you see him, please correct.

A dreamer, a sentimentalist, a lover is [that you wanted ?
Mr. Riad with an M is always haunted.
She is cute, good looking yet she [doesn't condescend
To be with him, she is shy I apprehend.

And the rest, think, they are better ?
Secretly they are worse than the latter.

If you're fond of a high rate talker
And hate to be an ardent smoker
Hurry up, and listen to Mr. Vorperian.
Be careful ! and evade Mr. Stephan.

As I look et our Curriculum

Hanna Araj — Pharm. III

The curriculum of the pharmacy school has been a favourable subject of discussion amongst pharmacy students of all classes. Some of the ideas and suggestions contributed by students were really destructive, others were unintentionally harmful, while others had a constructive foundation and an honest intention of reform. To these latter ideas, I am going to confine my discussion, giving my personal idea which is also shared by some pharmacy students.

The common complaint amongst the first year pharmacy students is the unnecessary of taking the General Physics Course. Well, I had the same idea 3 years ago ; but now and only now in my third year of pharmacy, I have found myself to be wrong. For though we do not make use of a lot of our physics in the practice of the profession, yet we need it as a part of the store of our general knowledge as scientific people who dare hold themselves worthy of the Pharmaceutical Chemist degree.

Coming to the second year pharmacy, I feel that the semester course of organic chemistry is not at all sufficient to meet the needs. A year course of organic chemistry should be taught in the second year, to bring the standard of organic chemistry to a level indispensable for a student of pharmacy. This will enable him to understand complicated organic reactions and interpret the pharmacopoeial assays under certain organic drugs taken in the third year.

Even a year course of general organic chemistry is not sufficient to meet the purpose. Therefore in teaching a semester course of organic pharmaceutical chemistry to the third year students, the greatest attention should not be paid to the theoretical preparation or organic drugs ; because we shall not attempt at preparing them in our future pharmacy ; but attention should be paid to the explanation of the outstanding points in the pharmacopoeial monographs, and especially to the assay of drugs, as well as to the testing for identity and purity. These tests cannot be intelligently grasped and interpreted without a sound theoretical background.

A complaint might arise at that point. A student might complain now that the second and third year classes would be overburdened with work. A solution out

of that problem would be to make the pharmacognosy a year course like the system which is applied at some American Colleges of pharmacy, and during this year the laboratory work would include the important drugs only such as the potent and narcotic drugs. At the same time the theoretical work would consist of the study of drugs directly from the text ; for in that way we can spare a lot of time devoted to the taking up of lectures, the material of which can be obtained from a standard textbook.

Let us take up the pharmacy proper. Besides the good standard of pharmacy knowledge that we attain through our four years of study, including *Materia Medica*, official pharmaceutical preparations and pharmacy laboratory, we still need a certain amount of practice at the University Pharmacy. We ought to be given tricky prescriptions to dispense ; including prescriptions having certain incompatibilities ; and we have a large stock of these ; also prescriptions that need a special technic for dispensing them. So by actually working out these prescriptions we will come to know through our mistakes the right way for dispensing as well as any incompatibility, whether physical, or chemical.

A few years ago, there existed the degree of Graduate of Pharmacy awarded to students who make three years of study and a year of practice. That degree was cancelled and students are now required to study a fourth year at the end of which they get the degree of Pharmaceutical Chemist. The important thing to know is what makes students now worthy of the degree of Pharmaceutical Chemist ? Do they study an extraordinarily exceptional course of advanced chemistry in the Fourth Year ? Well personally I do not know of such a course existing. But there is a suggestion I would like to bring up ; either we resort to our old method of granting the degree of a Graduate of Pharmacy at the end of the fourth year ; or if impossible to do that then it would be only just and right to add a really thorough course of public analysis to the now existing courses of the fourth year, so that a future pharmacist can work at public analysis besides his pharmacy work, and at the sametime he would satisfy his conscience for holding the degree of a " Pharmaceutical Chemist ".

Do You Know That ?

— The news of Dr. Ladakis' sudden death fell as a heavy blow on staff and students and stunned them all. The classes in the pharmacy school were suspended on Wednesday morning May 14 to permit staff and students to assist at the inhumation. Both teachers and students as well as alumni acted as pall bearers from the hospital to the Greek Orthodox Church in Ras-Beirut. Students also carried the numerous wreaths which were sent. In church, Dr. Basilio spoke a brief and an eloquent word in which he outlined the life of Dr. Ladakis and described him as we all knew him and made us feel more poignantly the extent of our loss. Then Mr. Bahij Baroody spoke a stirring word on behalf of the former pharmacy graduates — a large number of whom were present at the inhumation. The corpse now rests in the cemetery beside the church and so even in his death he remains near to his Alma Mater whom he served so faithfully and loved so much and near the School of Pharmacy which he made his home for half a century.

— We are very sad to announce the death of the mother of Dr. Pauly. She was 87 when she passed away last Easter Sunday. We tender our heart-felt sympathies to Dr. and Mrs. R.J. Pauly and the rest of the family.

— Dr. R.J. Pauly has been spending a very busy furlough. Upon arrival in the States early last summer, he spent about a month and a half in the research laboratories of Winthrop Drug Co. assisting in some research problems. He then attended the annual convention of the American Pharmaceutical Association and visited several colleges of pharmacy. He also visited several apparatus wholesalers, examined and ordered a number of pharmaceutical machinery for the manufacturing pharmacy laboratory such as an ointment mill, a motor driven press-filter, a motor driven drug mill, etc., all of which have already arrived. He also ordered and sent several valuable books on chemistry and other subjects. Since the beginning of last January he has been very busy as Professor of Pharmaceutical Chemistry at the School of Pharmacy of the University of Georgia in Athens Ga., and will continue teaching until the end of June. He is in continuous correspondence with the staff of the pharmacy school, and ex-

pects to be back with family in Beirut next fall.

— Prof. Amin Haddad, acting director of the School of Pharmacy during the absence of Dr. Pauly, will be leaving with his family to Philadelphia where he will spend a year of study at the Philadelphia College of Pharmacy and Science.

— Prof. Joseph Matthes who taught organic chemistry, pharmaceutical chemistry, and drug chemistry is home sick for family and Alma Mater. Prof. Matthes will again be teaching at the M.C.P. (Massachusetts College of Pharmacy) and did not want to spend with us another year. We were very glad to study under him and we are sorry that he did not remain with us.

— President Dodge will go on furlough next year. However he hopes to be back by next Easter and be present at the 1948 commencement before he finally retires. Mr. Archie Crawford will be Acting President during the absence of our president.

— In a recent letter, Dr. Pauly wrote: "It does look as though we should start a school publication sometime soon so as to keep our graduates well informed in the field. A good journal devoted to that section of the world would certainly fill a great need — and probably should even be put out in Arabic ?"

— Prof. Matthes is an amateur photographer. His camera always caught students by surprise during the numerous trips and they greatly liked his humorous snapshots of them. On May 16 at the insistence of his students, he gave a most interesting talk on photography. Later, to a group who brought their cameras along, he demonstrated the technique of taking pictures. He also explained how to develop and print pictures.

— After a year in Nabak as Hospital Pharmacist, Mr. Emile Fahmi Ph. C. '45 returned to his Alma Mater to work as Assistant to the University Pharmacist. Last autumn he became the proud father of an embryo pharmacist Gabriel.

— Mr. Hasan Hasan, University Pharmacist, has very recently been blessed with a baby boy Ramzi.

— Mr. Monzer Shabib, Pharm. II, became during the Xmas vacation the

happy father of Samir.

— Mr. Levon Karamanukian, Pharm. IV, will complete requirements for graduation in February 1948, because he first joined the school at Mid year in 1944.

— Messrs. Mamduh Abu Hijleh and Najib Jamal were the Pharmacy Students' representatives on the Medical Student Council.

— Mr. M. Mirjan, Pharm. III, invited his classmates and teachers to his orchard in Sidon late in April. After the pleasant ride to Sidon, the group were entertained to a magnificent table of

tabboufeh, fruits and Sidon sweets. The group then visited Sidon Girls' School, after which they were invited by a friend of Mr. Mirjan for a sail to the lighthouse and back. The whole group sang the whole time boisterously all along the way back to Beirut. Two weeks later Mr. Tawfik Zard Abu Jawdeh invited twenty couples and his teachers to a magnificent dancing party in Chtaura. Of his grand hospitality and the unforgettable good time which the whole group had, refer to the report of the Pharmaceutical Society on another page.

For a quarter of a century, our director Dr. R. J. Pauly has been intimately associated with Dr. Ladakis and knew him as probably no body else did. The first part of the magazine was already printed when we received from him the following tribute to the memory of the late Dr. Ladakis.

Professor Triantaphyllo Ladakis lives, and will continue to live, in the minds of his students and friends just as much as if he were still present in person, for he has left among us a vast heritage of fond and loving memories.

Who can fail to remember the friendly, courteous, somewhat shy words of greeting ; the high-minded, sincere words of counsel that made appeal to one's better nature ; the examples of industry, regularity, and punctuality that betokened a well-ordered life ; or his very neat handwriting, his orderly attention to details, and his mild, considerate manners ? All students and colleagues found him easy to work with and many, scattered throughout the whole of the Near East, will admit that he helped them to form their own personalities into a balanced, purposeful life, giving them the honest foundation for their present success.

Through these personal traits and the high ideals he had for his chosen profession he continually built up the curriculum of the School of Pharmacy so that it has always stood among Class A Institutions. He lived for the School. It was largely his life. It will always have his imprint.

By his establishing and endowing a prize for pharmacy students his memory will continue to live with future generations of pharmacists as it does with those fortunate enough in having had him as a teacher.

Long live his memory.

R. J. PAULY.

Our Senior !!!

Levon Karamanukian — Pharm. IV

It is said that, Miss Maria Kazatel was very much disappointed with the manufacturing Pharmacy course... no lipsticks or cold creams were prepared during the practical part of the course.

A sudden interest has taken hold of Mr. Assadour Gulvartian — the economic condition of Lebanon and the trend of importing goods from overseas — is hurting his nationalistic feelings. He has a laboratory for preparing local ampoules.

Official Communiqué « You are cordially invited to attend a cigarette-party, at the residence of Mr. Hamdan B.A. (and in the very near futur Ph. C.) on June 26, 5 p.m... Any Pharmacy student is welcome, provided he brings along his cigarettes.

The Apollo of the class, Mr. Ramiz Affi, feels nowadays very tired, and lonesome. We understand he has a fiancée left behind in Palestine.

It is said that the School of Pharmacy is planning to buy an Encyclopedia Britanica, so that the students may refer to when they want.. to replace the vacancy left, by the graduation of Mr. Elia Shammass !

Due to the thinning of his pocket-money, Mr. Abu-Hijlah, has decided to live on an almost starvation diet... eight or ten loaves of bread, about half a kilo

of meat, some fruits (a few tiny kilos) and now and then some cakes, per day.

Mr. Naamani had decided to found a factory for cosmetics. We are not yet sure if this plan is to get quickly rich, or to provide his future wife or wives, with an ample supply of cosmetics.

The senior class has been wondering, for sometime, about the secret which Mr. Adham has, in being able to attract so many members of the opposite sex to him. Any information on this subject is most welcome.

Under press : — We are informed that, what we said about Mr. Adham was untrue. It was rather the opposite sex which attracts him.

Recently Mr. Butrus Bishay, has declined an offer of a job in Sudan. (Salary £ 80 per month)... It seems he was afraid to get sun-tanned.

Mr. Mishriki (the artist of the class) has decided to write the name of the person he portray's behind the picture. It seems after a few days, he can't identify the portrait he has sketched.

Due to heart trouble, Mr. Louis-Paul-Haydar, has gone to the doctor for an examination. The doctor has advised him to reduce the number of cups of coffee he is drinking to not more than 20 per day.

A truth that's told with bad intent
Beats all the lies you can invent.

WILLIAM BLAKE

Correspondences are like smallclothes
before the invention of suspenders ; it
is impossible to keep them up.

SYDNEY SMITH

If life had a second edition, now I
would correct the proofs.

JOHN CLARE

Thou wast all that to me, love,
For which my soul did pine.
A green isle in the sea, love
A fountain and a shrine,
All wreathed with fairy fruits and
flowers,
And all the flowers were mine.

EDGAR ALLAN POE

Knowledge is proud that he has learned
so much ;
Wisdom is humble that he knows no
more.

WILLIAM COWPER

Some Contributions of Pasteur

Hani Kawar — Pharm. II

During the siege of Paris in 1871 Pasteur wrote to one of his friends ; « Oh why am I not rich ? I would say to you and the others. Come ! we will transform the world with our discoveries ? » The reader can imagine what sort of a man could say these words. Pasteur said that he could transform the world after he had seen and understood the secrets of atoms, both in matter and in the living cell.

In his earliest work, which was on crystallography he gave pharmacy a service in discovering that products of living origin are different from those same products when synthesized in the laboratory. The first are optically active in nature, that is, they deflect polarized light, while the latter are inactive and do not deflect polarized light. He discovered that inactive synthetic products are mixtures of the Dextro and Laevo types. His next problem was how to manufacture dextro tartaric acid in the laboratory by separating it from the laevo to obtain an exactly similar compound to that produced by fermentation of grape juice. He tried to separate the mixtures of the Dextro and Laevo Tartaric acid in the laboratory by magnetism and failed. However, he soon discovered that he could separate them by utilizing the difference in their solubilities. Thus facilitating a perfection of our present day manufacture of synthetic organic compounds.

The fact that optically active compounds are only produced by living cells made Pasteur ponder as to why we could not make a cell produce the Laevo type instead of the Dextro type.

Thus we see the chemist Pasteur plunging into the world of living matter and tackling the problem of spontaneous generation. He worked on the formation of spores and recommended a means of destroying them. He gave us four methods for sterilization ; wet heat, dry heat, steam under pressure (autoclave) and pasteurization. With these methods we can sterilize ampou-

les, mixtures, surgical instruments, syrups etc.

The fourth method came as a result of his patriotism. He wanted France to produce better wines and alcoholic drinks than Germany her enemy, and thus developed a process which today we name after him — Pasteurization, a process without which we are unable to manufacture our dried yeast and the lactic ferment (*Bacillus acidi Lactici*).

In 1865 Dumas his teacher of Chemistry asked him to go south and do something to save the silk industry of France from the diseases of silkworm. He went and toiled and sweated for 6 years, and saved this important industry of France. He gave us, as a result « The experimental bases of contagion and heredity » which dominated all pathology. That on contagion enabled us to experiment on microbes in vitro (i.e. in test tubes) or on animals not on human beings, thus hastening those great discoveries of the 20th century in medical science and especially in antibiotics.

Then came his famous work on Anthrax and followed that with his crowning invention of the chicken cholera vaccine and then the Anthrax vaccine. Finally he invented the hydrophobia vaccine, a thing which made his name ring throughout the world. It is interesting to note that Pasteur was the first to work on the attenuation of microbes, and especially those that form spores.

Hippocrates, the Father of Medicine, was the first to call for the eradication of ignorance and tradition and began to look scientifically for the causes of diseases thus revolutionizing medicine. However when Pasteur came, he looked into nature, deep enough to see a new world whose inhabitants are the causes for the happiness or sorrows of humanity and thus began his war against the world of the unseen in order to dominate it and make it serve humanity. Moreover he was the first to cultivate from it curatives in a scientific way by the use of vaccines.

A Report of the Activities of the Pharmaceutical Society

Elie Shammās — Pharm. IV — Président

The Pharmaceutical Society held its first meeting on Wednesday Nov. 13 th. 1946 in the Pharmacy Building. Forty six members were present of whom 37 had been members for at least one semester. The purpose of the meeting was twofold : (1) To discuss and vote on a proposed amendment whereby newly joined members could vote for the election of officers (2) To elect the cabinet members.

After a long and heated debate the proposed amendment was defeated by 25 votes to 12. Whereupon 18 members withdrew from the meeting and since 58 out of the 37 members eligible to vote remained thereby forming a corum, the meeting continued and the following officers were elected to administer the cabinet for the academic year 1946-47.

Committee Members :

Elia Shammās : President

Torkom Kalbian : Vice-Président

Adib Jidawn : Secretary

John Shakarjian : Treasurer

Mamdouh Abu Hijlah : Cabinet member (also a representative on the student council).

Membership :

Enrollment of members for the first semester was 71, while in the second semester it dropped to 64.

MEETINGS

The cabinet held regular meetings every Friday at 12 noon in the pharmacy building, while Society meetings were held on Thursdays at 6 : 30 p.m. in the first semester and on Wednesdays at the same time in the second semester.

ACTIVITIES

This year's activities were many and varied and only a brief mention of them would be possible here. The Committee started its schedule of a series of lectures by inviting Prof. Joseph D. Matthes to speak on « Pharmacy in the U.S.A. » On Jan. 16th Mr. Bahij Baroody a graduate of our School of Pharmacy, took us on an imaginary journey to the beginning of the century when he spoke on « The School of Pharmacy and its Professors in my School days ».

« In science one should be a doubting Thomas and never accept text-book statements blindly » was, the theme of Dean Pinkston's talk on « Pharmacy, an Ancient and Honoured Profession ». With so much talk of Pharmacy legislation in the Lebanon, it was only appropriate to have a proper understanding of the issue. So on March 12 th. Mr. Rashid Rishani, ex-secretary of the Syndicate of Beirut Pharmacists spoke on « The Practice of Pharmacy in the Lebanon, and the rights of Pharmacists ». Another lecture was also delivered by Mr. B. Baroody on « Pharmacy in the Lebanon, its Prospects and Possibilities ». While both speakers pointed out that proper laws are necessary, they stressed that what was more important is the implementation of the law.

To members who like excursions, the society offered quite a number of trips. On Sunday Dec. 8th about 20 members joined in a whole day trip to Tripoli. The next trip took place on Sunday March 30th to the Palace of Amir Shehab (Now the President's summer resort) at Beit-el-Din. Forty two members participated and certainly the place was well worth the trip. We had lunch at Barook and then visited the spring of Ain-Es-Safa. The pictures taken are a record of a pleasant and well spent day.

Social items were indeed not overlooked. On December 20th a Christmas tea party was held at West Hall Common Room. Some fifty members attended and we were honoured by the presence of the Late Prof. Emeritus Dr. T. Lada-kis and Dean Pinkston. On January 24th a dancing party was held at the Alumni Club. Those who attended really enjoyed it as evidenced by the difficulty we had to stop it at midnight.

Pharmacy students really proved to be all rounders for three cycling trips which took place to the Beirut aerodrome, sandy beach, Fawar, Dog river, and Khaldi. Furthermore two skiing trips were arranged in conjunction with the Athletic Office to Dahr-El-Baidar and Laqluq respectively.

At long last, after nearly three years of waiting due to prohibitive prices the

Committee was able to re-issue the Society's Badge and 60 were sold to members. By courtesy of the United States Information Service, educational films were projected in West Hall Societies Room. Nine films in all, on topics varying from Walt Disney's cartoon on T.B. to Grasshoppers were shown and attendance was fair.

A sub-committee was appointed by the cabinet to take over the publication of the « Apothecary ». It is only by their tremendous effort, zeal and sacrifice of time and energy that its publication was made possible.

With the academic year coming to an end and activities still being requested by students, we had to couple some of them together. On Sunday May 2nd a trip was scheduled to Chtaura. In addition we visited Baalbak and then back to lunch at Hotel Massabki in Chtaura. In the afternoon the whole group were

invited to a teaparty and dance at Mr. Tawfik Abu Jawdeh's villa. A major part of the great success of the trip is due to Mr. Tawfik and his brother in, the help they offered and in their Arab generosity. Prof. Matthes pictures are a good remembrance to the twenty couples who I am sure will long remember that day.

In conclusion, I would like to take this opportunity to thank my colleagues on the committee, by whom most of the planning and execution was done and Prof. Charles Abu Shaar for his able advisorship, and all members whose active participation and helpful suggestions made these activities possible. I would like to remind you that the society is really yours, you are the society.

How much it can accomplish depends solely on the amount of support you give it.

JOKES

Patient : What I need is something to stir me up — something to put me in fighting trim. Do I have anything like that in my prescription ?

Pharmacist : No, you'll find that in the bill ».

Student : I've added those figures up ten times, sir.

Prof. « Good boy ».

And here's the ten answers, sir !

Will you let me kiss you if I gave you a Franc ? asked the little boy's aunt.

A Franc ? he exclaimed. Why, I get more than that for taking castor oil.

Customer : May I have a dozen five grain tablets of Monoacetyl ester of orthohydroxybenzoic acid please ?

Pharmacist : You mean aspirin ?

Customer : Yes, I never can remember that name.

Uncle : Why, when I was your age I got a job in a pharmacy and worked until I had enough money to buy the place. Why can't you go out and duplicate that ?

Nephew : Well, these modern cash registers are pretty hard to beat.

Spectator : Have an accident ?

Victim : No thanks, I just had one.

Librarian : Here, here, what are you doing ?

Med Student : Just trying to remove this book's appendix.

Just as a first year pharmacy student entered the lab four seniors came out carrying a fifth senior. « What happened ? the freshman asked ».

« He took chloroform » explained a senior.

« If courses are that tough here, I am going home », said the frightened freshman.

Junior : What is horse sense ?

Father : Something a horse has that keeps him from betting on people.

In a Minneapolis drugstore, a 17 year old, buying a lipstick as a present for his girl was at a loss when asked the shade. Suddenly his face brightened, he whipped his handkerchief and pointed to a crimson smear. « There », he exclaimed happily, « that shade ! »
(By Enid Wold from Reader's Digest)

It is rather regrettable and greatly disappointing to hear from time to time, from some of the students, who in few years' time will graduate as pharmacists with the Ph. C. degree, that pharmacy is an unrespected profession, and that the profession of pharmacy is better taught during apprenticeship than in the school. It is indeed, regrettable, if we ourselves have this image about our profession which is one of the highest esteemed professions in the field of science. Some of them, even don't satisfy themselves with these false charges with which they accuse the profession, but even ask for limiting the courses that we study to those subjects they felt they lacked during their practice year, contenting themselves with *Materia Medica*, a bit of pharmacognosy and chemistry and rejecting other subjects which an average pharmacist should know such as botany, physiology and analysis.

This is an image of how our profession is being evaluated by some of us. If we, the future pharmacists, we an educated class of the people, so carelessly charge our profession; what would the common people say about us? To those who pretend that after their experience they found out that the profession is unrespected in their communities, I openly blame them and blame the pharmacists of that community, and not the people. It is they who are responsible for it, it is the fault of a minority which pulled down their popularity and respect. That minority which for some reason or other lowered the standard of the profession due to unworthy means of competition and show-up. Such a case is common in every walk of life. It is we, ourselves, who

should remedy the mischief brought us innocently by a minority of our predecessors. We should fight for our rights and our respect in this part of the world where selfishness and ignorance prevail to a great extent. We should prove to the people that we deserve their respect and dignity. We should not tolerate any fun made of us and we should not allow profiteering pharmacists to misuse their profession.

To those of us who say that what they get during their apprenticeship year is more valuable to them than the four years of study they spend in the school, I'd like to point out for them that in a pharmacy there are usually two persons. A pharmacist and an assistant. They have come to school to become pharmacists or else they could have continued their work in the pharmacy and became assistants. An assistant is a person that has spent many years in a pharmacy and who by practice has learnt to compound prescriptions, but who has no background and no knowledge of the stability, dosage, incompatibility, solubility etc. of the drugs he uses daily. A pharmacist on the other hand is that professional, educated person with a knowledge of the drugs he is dealing with. He is a person who has spent four years of his life in the School of Pharmacy, not merely to become a compounder of prescriptions, but also to become an enlightened person with a wide scope of knowledge in other sciences.

It is we, ourselves, on whom the progress and flourishing of our profession depends. Our profession is a respectable one, and will always be respected.

A prescription label issued by a Burlington, Iowa, drugstore reads: « Take one after breakfast and suffer ».

Quoted in *A Treasury of Laughter* (Through Readers Digest)

She: What for do you need 3 table spoons.

He: Doc. said to take 3 times daily one tablespoonful..

Prof. Joseph Matthes, seeing Najib Jamal asleep during one of his lectures in Organic Pharmaceutical Chemistry, walked over to him on tip-toe, and tapping him gently on the shoulder, whispered, « Mr. Jamal, I am sorry to interrupt your repose, but let me entreat you not to snore so loud lest you awaken the rest of the class »!

« ENJAY »

Is it a Dream ?

Maria Kazatel — pharmacy IV

As I look back I sometimes think that all these past years have only been a dream. Even I wonder if I am not really dreaming just now and that my stay in Beirut and my being in School are not simply a pleasant dream, which is going to fade away as I open my eyes.

The reader will not realize my past condition or that of any other Polish student, if he had not actually lived or passed through things similar to what we had been through. My story is the story of thousands of other Polish students some of whom you have seen on the campus of the A.U.B. It is not a particularly pleasant one.

When I was a child, I loved nature. Whenever I walked through the meadows, I always collected flowers, flowers to be dried in a book. That is how I began to like Pharmacy. Then there was another factor which influenced my life and made me study Pharmacy. That was a small pharmacy, the only Apothecary shop in my own town —

always clean, attractive, always with something new and interesting in its show-window which I used to admire.

At the first opportunity I entered the University of John Kasimir in Lwow to study Pharmacy. After one and a half years I was unexpectedly taken to Russia. Then the turmoil began : fear, sorrow, hardship, hunger and disease — for 2 years. The weak were doomed to death and the strong to bare existence.

Then the world became again open for me : Persia, Tehran, the road to life and the last days of work as a nurse. Then the hospitable shores of Lebanon where my dream of again studying pharmacy was realized.

When I look back on the three years I have passed in the School of Pharmacy and realize that in the very near future I am going to leave it, I feel that I am going to miss something and that I am awakening from a beautiful dream.

To My Colleagues

Samih Adham — Pharmacy IV

Soon we shall be no longer together. Our school days will be over. As the commencement approaches, it is not towards a few months of holiday, fun, and rest that we must look, but rather towards the next phase in our life, the beginning of our career.

Each has a different conception as to the ways of conducting one's life. I hope that whatever this conception is it will not lead us to neglect our work and

deviate from the ultimate aim that a noble profession like ours assigns to everyone of us.

What this aim is, is obvious — just do your duty. Being privileged with the power of helping the poor and the sick, let us not fail to do so. Let us stick to the path of honour and integrity our predecessors have laid for us, always remaining worthy sons of our calling and our Alma Mater.



Hasan Hasan Ph. C.
University Pharmacist



Emile Fahmi Ph. C.
Assistant University Pharmacist

The University Pharmacy A. U. B.

In 1873 two young men decided to take pharmacy as their life career. Hence, the Syrian Protestant College added to its Medical Division a Pharmaceutical Department. After two years of hard study Daoud B. Nahhul and Salim Hallaq B.A. graduated in 1875 and received certificates entitling them by Vizierial order, to appear before the Imperial Medical School at Constantinople for examination to obtain the licence. These two students and those that came after them until 1892 did their practical experience in the pharmacy of The Johanner Hospital which was founded and supported by the Knights of the Johanner Order of Germany and was under the care of the Medical Faculty of the S.P.C. In later years, after 1892 the Seniors in Pharmacy had practical work in making official preparations in the pharmaceutical laboratory, and their class room work was so arranged as to give them their afternoon free for work in compounding and dispensing prescriptions in the pharmacies of the city and which belonged to graduates of the College. In 1903 the College equipped a model Pharmacy in the Chemical Laboratory (The present pharmacy building). The Pharmaceutical laboratory was adjoining the dispensing room. These two departments occupied the present University Pharmacy and Prof. Pauly's Office. The Prescriptions of the college physician were here prepared and dispensed. All the work was done by the senior students in sections under the immediate supervision of the instructor of pharmacy, who thus demon-

strated and put into practice, the principles taught in the class room. Maria De Witt Jesup Hospitals (now University Hospitals) were started in 1908; their medical supplies & drugs were supplied by the College Pharmacy and this almost doubled the work in the pharmacy. In 1908 the first Dispenser (Ilyas Salim Burdkush of Khartoum, Sudan) was engaged to assist the Prof. of Pharmacy, (The late Dr. Ladakis). The year 1920-21 was the beginning of a new period in the life of the S.P.C. and the new name the American University of Beirut was adopted. It then followed, the College Pharmacy was given its new name University Pharmacy. As the number of students in the University increased, the University Hospitals became more busy and with the establishing of the big and well equipped Out Patient Dept., the work and the responsibility of the University Pharmacy also increased.

Besides the routine work of dispensing, accounting etc. which the University Pharmacy performs daily, this department of the School of Pharmacy serves as the chief point of contact between the Hospital Staff and the Pharmacy Staff where many problems of professional interest are solved daily. Nowhere else can a pharmacist show better the importance of the services that his profession can render for the proper treatment of the sick, than he can do in the Hospital Pharmacy. The University Pharmacy is doing its best in this direction.

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