

And, judging from the inquiries that we receive from pharmacists, prescription problems are as numerous as they ever were. We trust we have not bored you with the simplicity of the problems that we have considered at this time. We find that it is often the simple problems that prove bothersome to the compounder while the apparently complex ones are solved without difficulty.

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## THE PRACTICE OF PHARMACY IN SYRIA.

BY TRIANTAPHYLLO C. LADAKIS.\*

Syria, a former province of Turkey in Asia, is now under French mandate.

It has a population of about 2,700,000 and is divided into four States: 1. The State of Syria proper—including the cities of Damascus, Aleppo, Hama, Homs, etc. 2. The State of Greater Lebanon including the cities of Beirut, Tripoli, Sidon, etc. 3. The State of the Alaouites including the cities of Antioch, Alexandretta, etc. 4. The State of Djebel Druze (the mountain of the Druzes) with Sweida the capital and principal town.

As regards the practice of Pharmacy, the mandatory power follows the Turkish rules and regulations, modifying or adding any according to circumstances as, for instance, in the restriction of the importation and dispensing of the habit-forming narcotic drugs.

*Narcotic Drugs.*—The list of narcotic drugs includes: Opium, extract of opium, alkaloids of opium (except codeine) their salts and derivatives; morphine and its salts; diacetylmorphine and its salts; cocaine, its salts and derivatives; haschiches and its preparations.

Only regular licensed pharmacists are given permission by the authorities in charge to import, export, keep for dispensing, sell or transport any of the narcotic drugs of the list.

A special book is supplied to every pharmacist by the Sanitary Department in which all imports and sales of narcotic drugs are written in detail. This book is at the disposal of the authorities for inspection at any time.

Narcotic drugs are not dispensed except on doctors' prescriptions and such prescriptions are not repeated except in the case of powders containing less than one per cent of cocaine or its derivatives, and preparations to be taken internally not containing more than three centigrams of morphine hydrochloride, diacetylmorphine, cocaine or twelve centigrams of extract of opium.

Doctors are not allowed to prescribe narcotic drugs for a period longer than seven days; pharmacists must refuse to dispense prescriptions of which the preparation may last more than seven days. Doctors are not allowed to write several such prescriptions for the same person, whereby each prescription might be filled by different pharmacists. Pharmacists must not dispense any narcotic drugs in substance and never to persons who are under eighteen years of age. Narcotic

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drugs may be given to doctors for their private practice on a written, dated and signed order.

*Opening of Drug Stores.*—Nobody is allowed to open a drug store in the larger cities of the country for dispensing purposes, unless he holds a diploma of a recognized School of Pharmacy and a license issued by the local authorities. Holders of diplomas of schools of pharmacy in Europe, America, or elsewhere, are examined by the State Board of Examiners of Greater Lebanon for a license, which gives them the right to practice pharmacy in all of the four States of Syria. In villages, medical men usually compound their own preparations, or the dispensing is done by practical dispensers or by certain licensed dispensers.

*Licensed Dispensers.*—In Greater Lebanon, during the Turkish regime (before the last great war), assistant dispensers were given a permit after passing a very simple practical and oral examination in dispensing before the Sanitary Department authorities. Holders of such permits were allowed to open pharmacies in villages where there were no pharmacies owned by graduate pharmacists, and such drug stores exist to the present time.

*Practice of Pharmacy.*—The practice of pharmacy is conducted on pure pharmaceutical lines (with one exception); nothing outside of drugs and medicines is dealt with. A great deal of dispensing was formerly done in drug stores and many forms of preparations such as powders, pills, cachets, elixirs, syrups, etc., were prescribed, but the tendency, unfortunately, of prescribing proprietaries is growing among the doctors and to-day 75% of the dispensing consists of proprietary preparations and of these 80% are French and the remaining 20% are divided among English, American, Italian and German proprietaries.

It may be of interest to explain why French proprietary medicines are more prescribed than others. One may think the reason is because the country is under French mandate: this is not the case, as even when the country was under Turkish regime, French proprietary preparations were prescribed very much more than others and this is the case in all the Near East. The reason is that a good many of the natives speak and many also write the French language and nearly all of the medical men speak and write or only understand the French language. This fact is taken advantage of by the French manufacturers of pharmaceutical proprietary preparations who spare neither time nor expense to flood the offices of the medical men with samples, literature and even medical magazines published by them simply for the propaganda of their proprietaries. Samples of proprietary preparations in original packages are mostly mailed from France without the request of the medical man, others are sent after a request card and still others are distributed by the local agents of the firms, not to mention diaries, desk calendars, safety razors, clinical thermometers, fountain pens and many other things that are distributed for advertising purposes.

*Pharmacy Regulations.*—The rules governing the practice of pharmacy in Syria are those of Turkey and the principal ones are the following: No one is allowed to open a drug store or prepare medicines unless he is a graduate of a School of Pharmacy and is in possession of a license given by the Government. Permission to open a drug store or to transfer an existing one from one place to another must be obtained from the Health Department of the city or district.

Military pharmacists or pharmacists employed in the Sanitary Department

offices are not allowed to open drug stores. A pharmacist is not permitted to keep open more than one drug store, even if he puts the second drug store under the direction of a graduate pharmacist. If an assistant dispenser—while working in a drug store—is studying at the same time in a School of Pharmacy, gets his degree in Pharmacy and a permit to open a pharmacy, he is not allowed to open a shop near his employer's drug store unless he secures permission from him, or his shop is going to be at least 750 yards distant from that of the store in which he had last been engaged, or a time of three years has elapsed after leaving his employer's shop.

Each pharmacist is obliged to keep a prescription book into which he must copy all the prescriptions he dispenses. Each prescription book must be numbered and stamped by the Health Department of the city or district, and prescriptions must be numbered and dated; they must also bear the name of the physician of the drugs and quantities, and directions to the patient, name of the patient and price. No prescription is to be dispensed unless it is signed by a licensed physician or veterinary surgeon recognized by the authorities.

All preparations dispensed must bear a white label intended for internal use and a yellow one for external applications.

Highly poisonous drugs should be kept in a locked closet (Poison Closet) and the key kept by the pharmacist.

Although pharmacists are not allowed to sell all poisonous substances they are permitted to sell poisonous drugs that are to be used for agricultural or horticultural purposes, but only to persons known to them and on a written and signed request giving at the same time the use of the drug.

Partnership between a pharmacist and a physician is forbidden.

Drug stores are to be inspected twice a year. The commission of inspectors consists of three persons, a Sanitary Department officer (usually the inspector of pharmacies when there is one), a Municipality official and a police officer.

*Official Pharmacopœia.*—As Turkey had no Pharmacopœia of its own, the French Pharmacopœia ("Codex Medicamentarius Gallicus" or "Pharmacopœe Francaise") was recognized as the Official Pharmacopœia of Turkey and as in Syria the Turkish rules and regulations on Pharmacy are still followed, the French Codex is the Official Pharmacopœia of the country.

Some of the physicians of the larger cities are either foreigners who have studied medicine in foreign lands or natives who have studied in Europe or America. These physicians often prescribe preparations not official in the French Codex. In addition, many of the professors at the School of Medicine of the American University of Beirut are American and English. All these professors prescribe preparations official in the United States or British Pharmacopœia, so pharmacists here of the School of Pharmacy of the American University can put up American or English prescriptions as readily as those containing preparations of the French Pharmacopœia.

*Prescriptions.*—Prescriptions are mostly written in the French language; some are written in Latin and very few in Arabic. As a rule the metric system of weights and measures is employed in prescription writing; rarely one meets with prescriptions with the apothecary system and these are usually of foreign origin.

Directions to the patient are given in Arabic, French or English: that is,

the prescription may be written in French or Latin and the directions to the patient in Arabic.

Liquid preparations are usually taken in tea or tablespoonful doses; however, for preparations intended to be taken in half- and one-ounce doses, the coffee cup is the measure and it is supposed to hold one ounce; tea and table spoons differ very much in size, and the variation in coffee cups is still greater—they hold from one to two ounces each.

*Preparations.*—All forms of preparations are prescribed; tablets are taking the place of pills; cachets are very much used, hard gelatin capsules, less; soft gelatin capsules are made and filled in Europe or America. Non-spread plasters are practically never prescribed with the exception of the cantharides plaster for which there is considerable demand, enclosed in a small envelope and called *Mouche de Miland* (the city of Miland fly instead of the Spanish fly); there is also demand for spread cantharides plaster. A proprietary non-medicated porous plaster is largely sold. Glycerogelatin ovules, simple and medicated, are very frequently prescribed; also medicines in ampuls.

*Household Remedies.*—The household formulary of this country is not an extensive one. Formerly, common people believed disease to be an affliction from God and so by having faith in God or the Saints, the sick may be cured; some of them hold this belief to-day. Also quack doctors were doing a good business; to-day, however, people have recourse to the medical profession for the care of the sick and even are beginning to employ educated nurses for the better care of the sick.

Some of the commonest household remedies are: hot infusions of anise seed, used against colics in children; hot infusions of wild chamomile, and althea flowers used against coughs and chest troubles in general; hot linseed meal poultice is a favorite remedy; tincture of iodine is largely employed for painting the chest and all parts of the body, really much more than is necessary and, internally, given in drops with infusions of tea, coffee or in milk.

Purgatives, laxatives, quinine and headache preparations are quite generally employed by the people. Castor oil and Epsom salt are the most frequently used purgatives; the former is preferred in winter, the latter in summer. Compound licorice powder and cascara sagrada tablets are among the popular laxatives. Quinine and aspirin in tablet form or in cachets are very much used.

*Pharmacies.*—The number of drug stores in a city, town or village is not limited; in Beirut, twenty-five or more of the fifty drug stores are located in two centers of the city and the remainder are scattered all over the city; whole sections of the city are without a drug store. Most of the drug stores open at about 6.00 to 7.00 o'clock in the morning and close at about 7.00 to 9.00 o'clock in the evening; several close on Sunday afternoons.

*Night Service.*—In the city of Beirut, with a population of over 100,000, a night service was instituted two or three years ago and so far four drug stores maintain night service, that is they are ready to dispense urgent prescriptions any time they are called upon at night without making an extra charge. The night service was forced upon the stores by the local authorities; it was first suggested that each pharmacist in each section of the city (the city being divided into four sections) render night service a certain number of weeks each year, depending on the

number of drug stores in the section, but as some of the pharmacists agreed to give the night service throughout the year on a small monthly contribution made by the other pharmacists, the latter procedure is in force.

Only one drug store in all of the four States of Syria is conducted on American lines; all the other drug stores deal only in medicinal substances and so the work is very limited, especially, as many patent and proprietary preparations are in demand to-day, from the sale of which very little profit is made. Some drug stores deal in perfumery but these sales are decreasing as people prefer to buy such supplies from general stores. Formerly, some drug stores dealt in photographic goods; at present, however, this business is carried on by special photographic shops and pharmacists have discontinued the line. The work of the pharmacist is becoming less and less remunerative because it is confined to drugs and on account of the keen competition of wholesale druggists and the so-called spice dealers. The time is coming when drug stores will be run on the American system; such stores, besides doing a good business at the soda fountain, are very well stocked with large variety of American proprietary remedies and other American commodities, stationery, varnishes, paints, colored paper for decorations, etc., etc.

*Wholesale Drug Stores.*—Most of the wholesale drug stores are run by practical men. No special qualification is required in order to open a wholesale drug store. Wholesalers sell at retail to pharmacists as well as to the public and, practically, without any restriction as regards selling to the latter. The only drugs they are not allowed to sell to the public are the poisons; they are not permitted by law to fill prescriptions; however, some of them do fill prescriptions, but not openly. Wholesalers sell all proprietary preparations and common drugs directly to the public and, usually, at the price sold to pharmacists, so no margin of profit is left to the latter.

*Achtarin.*—Another competitor of the pharmacist is the so-called spice dealer. Most of these dealers are located in a certain street of the town and that street is, usually, named the spice-dealer's street or Bazaar. These dealers sell, besides spices, all sorts of vegetable drugs, barks, roots, flowers, leaves, seeds, castor oil, almond oil, borax, alum, tartaric, boric and citric acids, magnesium oxide, epsom salt, etc., etc.

*Manufacturing Pharmacy, Imports and Exports.*—Before the last great war there existed in Beirut a so-called pharmaceutical factory, in which the principal work was the extraction of Scammony Resin from scammony root or from scammony juice. In addition to the extraction of the scammony resin, pharmaceutical preparations such as extracts, fluidextracts, pastilles, tablets, pills, ampuls were filled, and some other simple or compound preparations were made for local consumption. The scammony resin was exported to foreign countries. The factory belonged to a French company and being enemy property was confiscated by the Turks during the war. The company has not started business again, hence practically no pharmaceutical manufacturing is done in Beirut with the exception of tablet-making on a small scale.

*Imports.*—All drugs and chemicals are imported from Europe and America; nearly every European country supplying some drugs or chemicals. Before the last war most of the chemical supplies and apparatus were imported from Germany, with the following countries next in order: France, England, Italy, Austria, Amer-

ica. After the war, on account of the high custom house dues imposed on goods imported from Germany, more supplies were imported from France than from Germany. Now that Germany has joined the League of Nations, the differential tariff has been removed and the custom house dues are the same for all foreign countries, therefore supplies are beginning to come from Germany and soon this country will gain its previous position.

*Exports.*—The country exports practically nothing of pharmaceutical interest; Aleppo nut galls and licorice root are exports of considerable importance. The licorice root is mostly exported to the United States for use in the manufacture of chewing tobacco.

*Pharmaceutical Association.*—No pharmaceutical association proper exists in this country. A Medico-Pharmaceutical Association was organized a few years before the war, discontinued during the war, and started again a few years ago; it includes members of both the medical and pharmaceutical professions. Meetings are held once a month where medical (mostly) and pharmaceutical matters are discussed. A few years ago drug-store owners formed an association called "The Pharmacists Syndicate." The object of this association is the protection of the commercial interests of its members, who must be owners of drug stores.

*Pharmaceutical Periodical.*—No pharmaceutical magazine is published in the country; a medical magazine in the Arabic language, "Medical and Scientific Review," is published in Beirut. It treats mostly of medical subjects and is the official organ of the Medico-Pharmaceutical Association of Beirut.

*Analytical Work.*—In the largest cities of Syria, until recently, most of the analytical work for the medical profession was done by pharmacists who kept laboratories for the purpose in their drug stores; the analytical work included qualitative and quantitative examination of urine, gastric contents, sputa, etc. At present, however, special analytical laboratories are conducted by medical men, making both chemical and bacteriological examinations; they are not practicing medicine, but give all of their time to analytical work.

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## BETTER MEDICINES.

THE FIRST OF A SERIES OF RADIO TALKS ON "THE PHARMACISTS' RELATION TO THE PUBLIC."\*

BY FREDERICK J. WULLING.

Pharmacists have been made by legislative enactment a social group to which has been given the exclusive privilege of preparing, compounding and dispensing drugs and medicines. Under the Minnesota statutes no persons other than duly registered pharmacists may dispense medicines. Physicians

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\* At the request of the University of Minnesota, Dean Wulling is broadcasting a series of six pharmaceutical talks. The above was broadcast November 15th. The other talks are scheduled for November 29th, December 6th, 13th and 20th, and January 3rd. The subjects of the six talks are: "Better Medicines," "What the Pharmacists Are Doing for the Public," "The Present Upward Trend of Professional Pharmacy," "What Should Be Known About the U. S. Pharmacopœia," "Patent and Proprietary Medicines vs. Physicians' Prescriptions and Household Remedies," "First Aids by the Pharmacist."