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Botanical Medicine Monographs and Sundry **CHINESE DRUG STORES IN AMERICA.**

By STEWART CULIN.

Read before the Philadelphia College of Pharmacy at the Pharmaceutical Meeting,
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Not the least interesting feature of the Chinese quarter in our American cities are the drug shops which these conservative people have established for the sale of their native drugs in connection with their general stores.

These shops reduplicate the herbalists' shops of Hong Kong, and their native villages. They are usually conducted by a separate company from that of the store with which they are associated, and their supply of drugs arranged on one side of the shop, apart from the other wares. The sign of the company, a green or black tablet with the felicitous name invariably selected for such enterprises, inscribed in gilded letters, is suspended within the shop.

The drugs, such as are frequently called for, are contained in boxes or drawers ranged in tiers behind the counter. These boxes are usually divided into four compartments, and their contents indicated by neatly written labels of red paper, or sometimes, in lieu of labels, a tablet is suspended in front of the shelves, upon which appears a plain of their multitudinous contents. Powders are kept in tin or brass boxes in a drawer beneath the counter; a series of bottles contain nuts and mineral substances; while poisons, and some of the more rare and valuable drugs, are dispensed from a locked case with glass doors. Piled high above the cases are innumerable packages, each with the name of its contents written on the projecting end, which constitute the reserve supply of drugs, or contain barks and herbs seldom called for by the practitioners here. Space will not permit any extended reference to the *materia medica* of China, of which almost a complete collection may be found in the stores we have described. It is popularly known to us through the accounts of travelers, as grotesque and childish, composed of "dragons bones" and scorpions, snake skins and melon seeds, and substances selected more on account of their scarcity and curious origin than for any medicinal virtues they may possess. The results of such observations as have been made by competent foreign scholars are contained in transactions of learned societies and books generally inaccessible to American students, but they go far to show that many of their drugs are not without great value, a large number of them, in fact, nearly identical with those of our own pharmacopœia, and that many important discoveries have resulted from the centuries of experiment upon which their practice of medicine is founded.

Nearly all of the medicines in general use here, with a few important exceptions, are

of vegetable origin and consist of nuts, berries, roots, barks and herbs. The subjoined list, furnished by a Chinese physician in Philadelphia, contains the names of the ten drugs he considers valuable, if not indispensable, and gives some idea of the substances actually employed in their practice:

正防黨 *Ching fong tong*. The root of a plant.

何首烏 *Ho Shau Ú*. Root of *Aconitum Japonicum*. From Szechuen province.

大當歸 *Tai tong kwai*. Root of *Aralia edulis*. From Szechuen province.

紅菜杞 *Hung kwo kí*. Fruit of wild *Berberis Lycium*. From Szechuen province.

川杜仲 *Ch'ün tò chung*. The outer bark of a tree. From Szechuen province.

杜松 *Pak k'í*. A kind of lung wort.

司芎 *Ch'ün kung*. "Nodular masses consisting apparently of the rootstock of some umbelliferous plant allied to angelica." From Szechuen province.

苧草 *Kòm ts'ò*. Liquorice root.

淮山 *Wái shán*. The root of a water plant.

白朮 *Pák shut*. The root of *Atractylodes alba*.¹ From Szechuen province.

The medicines are all imported from China, either from Hong Kong or Canton, and reach here in their crude state, the herbs and barks in large pieces, and the tubers and roots usually entire. It is customary to cut the former in small pieces, and slice the latter in delicate segments, before placing them in the drawers and boxes for sale. A large cleaver, *yeúk ts'oi k'ap*, mounted with a hinge upon a slightly inclined table, is employed to chop the grasses and herbs in convenient lengths, while the tubers are sliced upon an instrument resembling a carpenter's plane, *yeúk p'ò*, inserted in a long bench upon which the operator sits, the pieces falling through upon a tray placed beneath. A canoe-shaped mortar of cast-iron, *yeúk shün*, is employed to reduce some of the more refractory nuts and minerals to powder. It stands upon four legs, and a heavy disk of iron is rolled backwards and forwards within it by means of a wooden axle to which the operator applies his feet, while his hands are free to perform other work.

The clerks who dispense the medicines have usually had some experience at home. They are paid from twenty-five to thirty dollars per month, with their board and lodging, the current wages among the Chinese here for unskilled labor; but their work is light, and they sometimes assist with the lottery drawings for which they receive additional compensation. They frequently act as bookkeepers, and, in common with

the shop-keeping class, are brighter and better educated than the mass of the immigrants. Their knowledge of medicine is derived almost entirely from experience, no books on the subject being used or studied by them and the *Pún tso*, or Herbal, is not to be found in any of their shops.

The prescriptions furnished by the native doctors, which are usually written upon Chinese letter-paper and a foot in length, contain only a list of the names and quantities of the medicines required, with concise directions for their preparation, no date or signature being appended. Upon being presented to the clerk over the counter, he weighs out the ingredients, and places them separately upon a large sheet of paper, going over them carefully afterwards to prevent any possible mistake. A hand balance, *lí tang*, is used, consisting of a decimally graduated, ivory rod, from one end of which a brass scale pan is suspended by silk threads. The smaller kind weigh from one *lí* to five and one-half *léung*, or Chinese ounces,¹ and are remarkably accurate.

Various simple expedients are resorted to by the clerk in the preparation of the medicines. Some are powdered in the upright iron mortar, *chung hòm*, and others in the porcelain mortar, *lúi ún*; certain roots and seeds are roasted in a pan, while others are steeped for a few moments in Chinese rice spirits. The package of medicine is carried home to be boiled, and the infusion taken at one dose by the patient. Some *hak tsò*, Chinese prunes, are usually furnished to be eaten at the same time. The prescription, of which no record is kept, is returned with the medicine.

The practice of medicine by the Chinese doctors here is confined almost entirely to what is called by the Chinese *noi fo*, or internal medicine. *Ngoi fo*, "external practice" or surgery, which constitutes a distinct branch of their healing art, is little understood by them, and their patients seldom make greater demands upon them than for a cure for a cold, indigestion or headache. But slight as may be their ailments, the Chinese of our cities are constantly taking medicines. Well, they resort to prophylactics, or try to improve their digestion; ill, they take one prescription after another, and drink quantities of unpalatable tea every night, usually, upon their own testimony, to little advantage.

No less than four shops supply medicines to the little colony in Philadelphia, and day and night their clerks are busy, weighing and pounding and tying up packages for the relief of their suffering countrymen. Nor are the drugs regularly prescribed by their physicians the only medicine used by them; almost every shop furnishes an assortment of pills and teas compounded by Canton pharmacists.

First among these are the *Wai Shang Ün*, or "Life Preserving Pills," which are taken by both the sick and well on account of their supposed vitalizing properties. In common with many other Chinese pills they are enclosed in a shell of vegetable wax, upon which is stamped the name, with that of the makers, in vermilion and gold.

1	1	<i>lí</i>	=	.57984	grains, Troy.		
10	<i>lí</i>	=1 <i>fan</i>	=	5.7984		"	"
10	<i>fan</i>	=1 <i>ts'in</i>	=	57.984		"	"
10	<i>ts'in</i>	=1 <i>léung</i>	=	579.84		"	"

One of these boluses—they are nearly an inch in diameter—is taken at a dose. The usual price for the best kind is one dollar apiece. They are said to be composed of *yan sham* (Manchurian ginseng), *luk yung* (deer's horns), and other expensive drugs. A cheaper kind is entitled upon a printed advertisement, *Yan sham luk yung ning shan po shan ün*—(ginseng and deer's-horn pills for tranquilizing the spirits and strengthening the kidneys). These also purport to contain *yuk kwai*, a precious cinnamon, the bark of the *Cinnamomum Cassia* (?), one of their most highly valued drugs. That used by the Chinese pharmacists here is imported in boxes covered with raw silk, each containing one piece, about fourteen inches in length. The price varies with the quality, from two dollars and a half to five dollars for one *léung*.

Sú hòp ün (rose mallows pills), are taken to relieve flatulency; *king fung ün* are intended for children; *ying im ugán ün* (the well approved eye pills), are dissolved in water and used as an eye lotion; *Shan hau pak chuk ün* purport to be a remedy for a certain disease, and *Shan hau hung ün* (Divinely efficacious red pills), are taken as a prophylactic against the same complaint. Occult and magical properties are claimed for nearly all of these compounds, and they are not regarded with much favor by the regular physicians.

Several varieties of ginseng are sold in the shops. The American root, sold under the name of *yéung sham* (foreign ginseng), is the cheapest, the current price being 40 cents per *léung*. Next in value is *kat lam sham*, said to be obtained from Corea, costing 50 cents per *léung*. *Kò lai sham* (Corean ginseng), is the kind most used here, and costs from \$2.50 to \$3.50 per *léung*. *Yan sham*, Chinese or Manchurian ginseng, the most precious and famous drug of the Chinese pharmacopoeia, is seldom, if ever, to be found in the stores. Occasionally one sees small roots purporting to be *yan sham* kept wrapped in raw cotton in tin boxes; but the enormous price asked for them, often from sixty to one hundred dollars for one *léung*, prevents their use except in extreme cases, or as a matter of luxurious extravagance.

In concluding these notes, we desire to call the attention of American students to the field afforded by these Chinese drug shops for the investigation and study of Chinese materia medica. Local observers in the Treaty Ports have made many observations; the series of papers now in course of publication by Mr. Charles Ford, assisted by his able colleagues in *The China Review*, are a most valuable contribution; but the subject is far from exhausted, and the student of historical medicine, who finds thus presented to him many of the drugs and methods of the mediæval leech, cannot fail to appreciate the light thrown by them upon the origin and development of the science of medicine in the western world. How far Europe has been indebted to China in this, as in so many of the useful arts, remains as yet almost a matter of conjecture.

EXTRACTUM LAPPÆ FLUIDUM

Contribution from the Pharmaceutical Laboratory,
Philadelphia College of Pharmacy.

By EDWIN C. LESHER.

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A series of experiments were tried to ascertain the best menstruum that would produce a clear percolate charged with the active properties of the drug. Alcohol and water employed in varying proportions were used. The result is as follows :

Burdock root, No. 60	8 oz. av.
Diluted alcohol, sufficient quantity for	8 fl. oz.

Moisten the powder with 2 oz. av. of the diluted alcohol, and pack it firmly in a cylindrical percolator; then add enough diluted alcohol to saturate the powder and leave a stratum above it; when the liquid begins to drop from the percolator, close the lower orifice, and, having closely covered the percolator, macerate for forty-eight hours. Then allow the percolation to proceed gradually, adding diluted alcohol until the burdock root is exhausted. Reserve the first $6 \frac{1}{3}$ fluid ounces of the percolate. By means of the still, distil off the remainder of the alcohol, and evaporate the residue to a soft extract; dissolve this in the reserved portion, and add enough diluted alcohol to make the fluid extract measure 8 fluid ounces. This affords a very dark winecolored preparation, of a strong odor, remaining permanently clear, and possessing the full medical properties.

A second experiment was made with a menstruum composed of alcohol, 2 parts, and water, 1 part, 3 fluid ounces of the mixture being used for moistening 8 ounces of the drug in No. 20 powder. The percolation was conducted as in the first experiment, and the fluid extract was finished in the same manner.

The third experiment differed from the first, in using burdock root in No. 30 powder, and in moistening 8 ounces of this with 3 fluid ounces of diluted alcohol.

In making these fluid extracts the alcohol was recovered by the use of a still, and after having ascertained the specific gravity, which was found to be 0.870, it was easily converted into diluted alcohol by the following calculation: To find the quantity of water to be added, multiply the difference between the specific gravity of the liquid and the desired specific gravity of the mixture by the quantity of the liquid, and divide the product by the difference between the desired specific gravity and that of the water to be mixed with it.

There is nothing more unsightly in the shop of a pharmacist than a bottle containing a liquid with a bulky precipitate. Not only is the appearance objectionable, but possibly the precipitated matter may contain the very substance which should be held in solution. In order to arrive at a satisfactory formula for fluid extract of burdock, it will be found necessary to take into consideration the principal

constituents of the root. By comparing the color and properties of the three preparations, the first one, in which diluted alcohol as the menstruum was used, is by far superior to the others. The liquid is clear, and possesses the full properties of the drug.

There has been some demand created for this fluid extract, and it is sold largely in some sections. The dispensing pharmacist can very easily make it himself, and thus be not only sure of the quality, but also affect a saving in the cost. The root is now obtainable, costing about 15 or 20 cents per pound.

ABSTRACTS FROM THE FRENCH JOURNALS

Translated for the AMERICAN JOURNAL OF PHARMACY

THUJA OCCIDENTALIS.—Pointed condylomata—according to a recent discoverer writing in the *Prat. Méd.*—shrivel and fall off in two or three days if painted with the tincture of *Thuja occidentalis*. The remedy is said to be preferable to all others where excision cannot be made. In the *Bull. Com.*, October, "E. F." finds that *Thuja articulata* was used thirty years ago for this purpose, and wonders why it has fallen into desuetude.

MYROBALANUS, the fruit of several species of *Terminalia*—an ancient remedy for intestinal affections, though long since disused in European countries—is receiving some attention of late on account of articles concerning it published in the *Union Pharm.*, September, October, 1887, by Dr. Apéry, of Constantinople. He calls it "an heroic remedy against diarrhoea," and tells us that Dr. Ahmed Pacha prescribes it with great success. The pharmacists of the East sell it in large quantities under the name of *Kara-halilé*, or Indicher. The doctor's investigations were made upon *M. nigræ*, *s. indicæ*, that variety being "the most energetic and having the greatest vogue." He found no alkaloid, but ascertained the presence of a green oleo-resinous substance which he believes to have an influence upon digestion and bile-secretion. This, together with tannin, which acts upon the intestines, leads the doctor to place the substance among the nutritive tonics and stimulants. A large number of doctors, who were led by him to test the substance, found it very effective in acute diarrheas of the aged and in infants, as also in intestinal catarrh in tuberculous patients. They also found it efficacious in hemorrhages, hemorrhoids and albuminuria. The doctor believes it to be the best remedy now used in the dysenteries, and acute and chronic choleric diarrhoeas, which decimate the people of the Orient. The dose is from four to twelve pills, whose size is not given. However useful myrobalanus may yet become as a medicine, it contains so enormous a quantity of tannin that a practical man reading these articles would be inclined to predict for it a still more brilliant success in the manufacture of writing fluids. Indeed, the investigator remarks: "It also makes a beautiful black ink, more stable than that from nut-galls."