

THERAPEUTIC USE AND PHARMACAL SALE AS A BASIS OF ADMIS-
SION OF DRUGS TO THE U. S. P.

BY H. H. RUSBY, M.D.

In previous papers (JOUR. A. PH. A., 15, 961 (Nov.) and 16, 538 (June)), I have discussed the subject of pharmacal sales as an indication of therapeutic use and therefore as constituting pharmaceutical necessity. Without pursuing that subject further at the present time, I desire to analyze the report of the Survey of the Charters' Committee regarding the sale of crude drugs in the pharmacies of the United States.

In connection with the survey, emphasis must be laid on the following facts.

1. It involves actual visits to 911 pharmacies and the careful interviewing of their proprietors.
2. The pharmacies visited were selected with great care, to represent all sections and all classes of communities and populations, so that the survey became about as representative and informative as it could be made.
3. The form in which the drugs recorded were sold in these pharmacies was the crude condition, whole or cut, and in bulk; that is, not in sealed packages but weighed out in the loose state, by the pharmacist himself.
4. The records do not include sales of preparation of these or other drugs, either made by the pharmacist or supplied to him by the manufacturer.

Thus considered, the following crude drugs were sold in fifty per cent or more of the pharmacies visited.

Apium or Celery Seed	69%	Matricaria	72 +
Cardamom Fruit	58 +	Myrcia	63 +
Chondrus	54 +	Orris	56 +
Cinnamomum, Ceylon	54 +	Pimenta or Allspice	50 +
Cinnamomum, Saigon	54 +	Cydonium or Quince Seed	51 +
Foeniculum	66 +	Sassafras	61 -
Juniperus	66 +	Sinapis Alba	66 +

Aside from the "pharmaceutical necessity" for having these fourteen drugs represented, it is doubtful if anyone will seriously deny that any one of them is devoid of therapeutical usefulness. In the case of the cinnamons, we have admitted the Saigon, but rejected the Ceylon, which is a better variety and sold to the same extent.

In addition to these, we find that *Lawsonia* or Henna Leaves is sold in 60% of the stores, *Helianthus* or sunflower seed in 63% and *Carthamus* or Safflower in about the same number. Still, these are scarcely to be regarded as therapeutic agents proper, and their emission may be disregarded.

Drugs sold in one-third or more of the pharmacies but in less than half, are the following:

Arnica Flowers	37 +	Lavender Flowers	35 +
Cinchona Ruba (specifically sold as such)	41 +	Mace	42 +
Cocculus Indicus, or Fishberries	44 +	Piper Nigrum	49 +
Chenopodium Seed	37 +	Quillaja	42 +
Cordiander	45 +	Sanguinaria	40 +
Illicium		Senna Pods	38 +

Among these twelve articles are a number that are distinctly toxic, and all are indisputably active therapeutically.

Crocus, sold in 41%+, Fenugreek in 37%, Logwood in 35% and Rape Seed in 36%, may be objected to as not being specifically therapeutical in their use.

The following are sold in 25% or more, but in less than 35%:

Cassia Buds	34%	Citrullus or Watermelon Seed	30%
Cataria or Catnip	30%	Populus Buds	33%
Cinchona Yellow (specifically sold as such)	25%	Resina Draconis	31%

Here we have in all thirty-one drugs sold in 25% or more of our pharmacies, all therapeutically active, but not in the Pharmacopœia, except the Cinchonas and Saigon Cinnamon. It remains to be noted that many drugs not sold in so many as 25% of the pharmacies are already in the Pharmacopœia for other reasons, principally because they are used for preparations that are recognized. Of these, I name Cantharis 24%, Ipecac and Guaiac 3%, Lobelia 17%, Kino, Stramonium, Podophyllum, Calumba and Styrax 15%, Senega, Spearmint and Cimicifuga 13%, Opium and Granatum 12%, Rhus and Gambir 10%, Herberis and Ergot 9%, Stavesacre 6% and Krameria 5%. A number of other drugs sold in less than 25% of the stores, should be included because of the demand for their preparations.

Whether the pharmacist does or does not manufacture his own preparations, his professional status assumes that this is within his province. Should he do so, it is quite as important that he use a standard drug as that a drug which he sells entire should be of standard quality. Of such drugs, I mention the following: Taraxacum and Triticum 19%, Salvia 15%, Caulophyllum 13%, Hamamelis 10%, Leptandra, Apocynum and Viburnum Prunifolium 6%.

DETERMINATION OF TOTAL CITRIC ACID IN SOLUTION OF MAGNESIUM CITRATE.

BY JOSEPH L. MAYER.

From the nature of the preparation and experience gained in its analysis it appeared to me that the U. S. P. IX did not go far enough in simply establishing a standard for magnesium in **Solution of Magnesium Citrate**; I, therefore, suggested that the U. S. P. X should include in addition standards for *free and total citric acid* and supplied methods for their determination. Being an auxiliary member of sub-committee 7, "Inorganic Chemicals," of the revision of the United States Pharmacopœia X, I saw the methods suggested by me go through the various *Bulletins*, but in an effort to bring them into accord with the procedure in the U. S. P. X under the "Assay for Alkali Salts of Organic Acids," they have been weakened; the method for total citric acid now reads as follows:

"Boil down exactly 10 cc. of the solution to about 5 cc. to expel carbon dioxide, dilute with 15 cc. of distilled water and titrate with half-normal sodium hydroxide, using phenolphthalein T. S. as indicator: it requires not less than 9.5 cc. of the alkali for neutralization (minimum of acidity). Concentrate the liquid and transfer it completely with the aid of a little distilled water to a platinum or porcelain crucible, evaporate to dryness, and proceed as directed under the assay for alkali salts of organic acids," page 431.