

SYRUP YERBA SANTA. AROMA-MAITC.

By D. J. Haigh, M.D.

Quinine disguisers do not occupy the important position to day that they did before the introduction of the gelatine capsule. The capsule solved the question for that portion of humanity whose œsophagus permitted of its being taken and to them nothing farther in this line is needed. All mankind do not possess such an accommodating œsophagus and to this class quinine disguisers remain a boon, and with them find a ready sale. I use the term quinine disguiser, but as far as my experience goes, there is no such thing. The market has abounded with so-called quinine disguisers for years and the crop of "tasteless quinines" springs up with persistent regularity. One fraud is scarcely exposed before another takes its place, the demand for a pleasant medium for administering quinine being so great the pecuniary advantages were accordingly sufficiently great to invite fraud. But the most that has been accomplished thus far towards obtaining a quinine disguiser is the preparation of a heavy syrup flavored with aromatics in addition to either licorice or yerba santa. But these act, so far as I have been able to judge, simply through the sweetness of the syrup which, being of heavy density, seems to envelope the bitter substance, and as the sweet taste preponderates we are temporarily sensible to that only. Water is generally taken immediately afterwards to rinse the mouth, and then the bitter taste returns to a limited degree. Licorice, I believe, disguises quinine better than yerba santa, but the latter has enjoyed a wide reputation for this purpose, and when properly backed up with suitable aromatics answers very well.

For the past three years I have given the problem of making a good syrup of yerba santa a good deal of attention, and the two formulas here given are the results of numberless experiments on this subject. It is claimed by many that the resin contained in yerba santa is the principle that disguises quinine, and numerous theories have been advanced to explain just why this is so. Some writers show that a compound is formed, but this has never been proven to my knowledge, and, as above stated, I think to the pleasantly flavored syrup is due the credit. Two formulas have been used to make syrup of yerba santa: one founded on the opinion that the resin contains the disguising principle, in which alcohol of 75 per cent. strength is used as a menstruum to exhaust the drug, the other in which simply the aromatic flavor of the drug is desired to be extracted, in which water is the menstruum employed. The question of the aromatics to be used is an important one, and I have found coriander combined with cloves and cassia answer best the purpose.

The formula with alcoholic menstruum is as follows:

Yerba santa, coarsely ground..	1 lb.
Alcohol, 75 per cent	q. s.
Sugar	6 lbs.
Oil coriander	30 minim.
Oil cloves	8 minim.
Oil cassia	8 minim.
Pumice	q. s.
Distilled water, q. s. to make	1 gallon.

Percolate the drug with 75 per cent. alcohol until $3\frac{1}{2}$ pints of percolate have been obtained; reserve this and continue the percolation until the drug is exhausted. Recover the alcohol from this last percolate by distillation; add the reserve percolate to the residue in the still and recover the alcohol from this also. Next remove the residue from the still, and rub with sufficient pumice to form a paste and to thoroughly subdivide the resin which has settled out. Add the oils and continue to rub until they are incorporated. Filter and add sufficient distilled water through the filter to make the filtrate measure $3\frac{1}{2}$ pints. In this dissolve the sugar without the aid of heat.

This gives a very pretty preparation, but the color is rather light. This can be remedied by first exhausting the drug with hot water before percolating with 75 per cent. alcohol. Two pints of water is sufficient to do this and may be added through the filter instead of distilled water to make up the required amount of filtrate, $3\frac{1}{2}$ pints.

The process is rather tedious for the retail store, and necessitates having a still or losing the alcohol, which adds expense to the product. It was thought therefore if the final results could be obtained and a syrup be made just as good without alcohol, that it would be a great saving in labor and expense. This has been tried and a syrup of yerba santa made without alcohol for a menstruum that is in many respects superior to that made with alcohol. The following formula has been in use now for over a year and the product has given very general satisfaction:

Yerba santa, coarsely ground..	1 lb.
Sugar	6 lbs.
Oil coriander	30 minim.
Oil cassia	8 minim.
Oil cloves	8 minim.
Pumice	q. s.
Hot water, q. s. to make	1 gallon.

Exhaust the drug by percolation with hot water, using three portions, allowing the first portion to remain on the drug several hours. Percolate until $3\frac{1}{2}$ pints of menstruum have passed through. Rub this with q. s. pumice to form a paste, add the oils and continue to rub until thoroughly incorporated. Filter and add through the filter sufficient water to make the filtrate measure $3\frac{1}{2}$ pints. In this dissolve the sugar without aid of heat.

This gives a beautiful dark reddish colored syrup which has a fine flavor of yerba santa. Heat, I believe, injures the aromatic principle of yerba santa, hence the syrup made by the first formula has not the fine flavor of this syrup. Several mixtures of licorice with yerba santa have appeared up-

on the market, claiming special prominence from their high sounding names, but there seems to be no advantage in such combinations.

With all of our improved processes and strivings after a tasteless quinine, like perpetual motion, and elixir of life, it is still a thing of the future.—Pharmaceutical Era.

The Pharmaceutical Paste-Pot.

By JOHN F. PATTON.

This commonplace but exceedingly useful adjunct to every drug store deserves more attention than is usually accorded it. Its value is only exceeded by the constant demand made upon it; and it fills that demand to the best advantage when possessing the following characteristics: cheapness, adhesiveness, smoothness, cleanliness, and freedom from fermentation.

The quantity demanded daily by the store doing an ordinary business makes cheapness an essential feature. Polished glass surface and highly calendered paper make it of absolute importance that the paste should be perfectly smooth and of a strong adhesion. It goes without saying it should be made from that which is cleanly.

We had some difficulty a year or two ago with paste made from gum tragacanth. After standing a few days it had a very unpleasant odor, and became almost useless as a paste, because it lost nearly all of its adhesive qualities. The trouble, I should judge, was caused by the formation of alcohol during fermentation. We tried flour paste, but this moulded, and could only be made in small quantities as needed for immediate use.

While making the paste one day it occurred to me that by converting part of the starch of the flour into dextrin by the action of an acid, that I might improve the adhesiveness of the paste. Accordingly I added some hydrochloric acid, and the result was better than anticipated. The product was a very white, smooth paste, which kept for weeks without becoming mouldy or losing its power of adhesion.

With this paste I found no difficulty in attaching labels to tin or other smooth surfaces.

The following is the formula I used:

R.	Wheat flour,	1 lb.
	Alum,	3 ii
	Borax,	3 ii
	Hydrochloric acid,	3 iss
	Water,	Q

Mix the flour, alum and borax, and stir to a smooth paste with the water; then add the acid and heat until the starch cells break, stirring constantly.

This makes a very thick paste which must be thinned with water as wanted for use.

A small quantity of essence of winter-green poured over the paste in stock will preserve it indefinitely.—Proceedings, Pa. Phar. Ass'n.