

assay much higher than another with low sand contents. In the case of drugs having an alkaloidal standard it is doubtful if an ash standard should be established. The following table gives results obtained with certain drugs and the standards given by different authorities.

Percolation Powders	U. S. P.	Other Authorities	Other Pharmacopoeias
Arnica flowers.....11.5%	10%	15%	10 to 20%
Asafœtida5 to 56%			10 to 20%
Bellad. leaves.....14.4%	2%	4.93%	1.5 to 2%
(0.37% alk.)			
Benzoin1.2%	(Purified Digitoxin (0.027%) (0.026%) (0.023%))	7.52% to 12.55%	6 to 10%
Burdock Root.....7%			
Calamus peeled.....3.5%			
Cascara Amarga.....3%			
Cascara Sagrada.....5%			
Cherry Bark.....4%			
Clover Red.....8.6%			
Coca Trux.....13.5%			
Cubeb7.6%			
Digitalis8%			
	(Alc. Ext. 60 to 72.5%)	10%	8 to 10%
			10 to 12%
	9.5%	12.55%	
Elm Bark.....12.4%	(Alc. Ext. 60 to 72.5%)	18.72% to 40.81%	5 to 7%
Elecampane7%			
Fennel Seed.....8.4%			
Gentian Root.....3%			
Kola Nut.....3.5%			
Larkspur Seed.....6%			
(alk. 1.62%)			
Lupulin9 to 16%			
Nux Vomica.....3%			
Pinkroot28.5%			
(Select 8.16)			
Quassia4.4%	8.52% to 30.97%	10 to 15%	3 to 3.5%
Squill3%			
Stavesacre13%			
Valerian10%			
(Select 5.2%)			

A FEW DRUGS AND PREPARATIONS SUBMITTED TO U. S. P. QUANTITATIVE TESTS.

Result of a series of examinations recently made in the laboratories of the College of Pharmacy of the University of Minnesota.

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The college has made annually for twenty years now an investigation into the quality of the materia medica of the Northwest and has reported its investigations regularly to the Minnesota State Pharmaceutical Association, in whose proceedings nearly all reports may be found. The reports may or may not merit wider

publicity, so I submit them for what they are worth. This year's report is much briefer than usual and is arranged in tabular form:

SUMMARY OF RESULTS.

Names of substance examined	U. S. P. Requirements	Results of assays in percentage	COMMENTS
Dilute Acetic Acid.....	6% absolute acid	5.85 7.42	} Only dilute acids were examined. Pharmacists usually prepare these by diluting the stronger acids and if these are not of the required strength the dilute acids vary from the standards unless they are assayed and standardized, which is seldom done. The samples examined met the requirements fairly well.
Dilute Hydrochloric Acid	10% absolute acid	6.78 11.34	
Dilute Sulphuric Acid..	10% absolute acid	10.57 11.00	
Aromatic Sulphuric Acid	20% absolute acid	14.51 16.85 17.80	
Ammonia Water.....	10% by weight of NH ₃	5.30 6.88 7.75 7.84 13.32	} These samples were bought in five and ten-cent lots from Minnesota drug stores and were labeled in each case "Ammonia Water." Pharmacists claim they must meet the competition of the department and 5 and 10 cent stores for a cheap household ammonia. They err, however, in using the official title.
Stronger Ammonia Water	28% of NH ₃	23.00 26.20	
Spirit of Nitrous Ether.	4% Ethyl Nitrite	2.14 2.26 2.57 3.42	} It is very rare indeed that samples are found that meet the full U. S. P. requirements.
Syrup of Ferrous Iodide	5%	5 samples, all below standard	} Two of the samples were prepared with great care in our own laboratories. They did not assay 5%. This has been our previous experience. I doubt whether the official formula will yield exactly a 5% product.
Sodium Bicarbonate.... Potassium Bitartrate... Potassium Iodide..... Solution Magnesium Citrate	}	} 1 sample of each assayed satisfactorily	
Seidlitz Powders.....	}	}	