

Referring to Table V, it can be seen that Preparations 104, 106 and 107 show a rather close parallelism between the total alkaloids and the M. Em. D. But Preparation 107 does not show the same parallelism. The number of preparations here is too small for any definite conclusions but it does tend to indicate that the total alkaloidal content and the M. Em. D. do not always run parallel.

CONCLUSIONS.

The need for a more acceptable assay for Gelsemium has again been pointed out and this is further indicated by the differences found in the strengths of the preparations tested. The indication that alkaloidal content and physiological activity are not always parallel further points to this need.

It is indicated from the data obtained in this study that the determination of the minimum emetic dose in pigeons might serve as an adequate measure of physiological activity; however, further study will be necessary to substantiate this belief.

There is an indication that the drug gathered from a cultivated plant in Florida is much more potent than that usually found on the market. This is suggested as a point for further study.

Should the determination of the M. Em. D. prove a satisfactory means of measuring pharmacological activity, the method would possess the following desirable qualities: economy, simplicity (an assistant being unnecessary), rapidity and a definite end-point.

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NEW YORK BOTANICAL GARDEN.

A report of the New York Botanical Garden speaks of extensive additions. The beauty of the Garden will be enhanced by more than a thousand trees and shrubs and 800 young hemlocks; 7000 heathers will be added to the heath planting.

SMITHSONIAN INSTITUTION.

The report of Secretary Charles G. Abbott of the Smithsonian Institution states that "nearly half a million specimens were added to the collections of the National Museum, mostly as gifts or from Smithsonian expeditions." Besides the usual scientific publications, a weekly radio broadcast on the activities of the institution has been put on the air by the Office of Education in coöperation with the National Broadcasting Company.—Through *Science*.

IT CAN BE DONE—SERIES NO. 5.*

BY J. LEON LASCOFF.

R̄ 1	Potassium Chlorate	8.0
	Tincture of Myrrh	12.0
	Distilled Water, <i>q. s.</i>	120.0

This is intended as a gargle but could not be used if compounded as written. There is a separation of the constituents of the tincture of myrrh when added to the water. To overcome this, the tincture of myrrh was rubbed up with one drachm of powdered acacia. Separately, the potassium chlorate was dissolved in some water and added to the myrrh and acacia. Finally enough water was added to make 120 cc. The final mixture is homogeneous without any separation.

R̄ 2	Zinc Sulfate	gr. I
	Boric Acid	gr. V
	Sodium Borate	gr. IV
	Rose Water, <i>q. s.</i>	℥ I

This prescription is intended as an eye prescription and if compounded as written will form a zinc borate compound which is insoluble. The addition of glycerin does not dissolve the precipitate sufficiently to be used in the eyes. The only other alternative is to filter.

R̄ 3	Cinnabar	4.0
	Precipitated Sulfur	4.0
	Water, <i>q. s.</i>	120.0

This prescription presented a very messy appearance when compounded as written. The cinnabar stuck to the sides of the bottle and could not be shaken into a uniform mixture. It is not necessary to use acacia or tragacanth. In preparing this prescription, the cinnabar was rubbed with half an ounce of glycerin and added to this the precipitated sulfur. Finally, the water was added, forming a homogeneous mixture without messy separation.

R̄ 4	Acid Carbolic	℥ XX
	Zinc Oxide	
	Zinc Stearate	<i>aa</i> ℥ II
	Glycerin	℥ ss
	Distilled Water, <i>q. s.</i>	℥ IV
	<i>Sig:</i> Shake before using. Apply locally twice a day.	

This prescription was presented before the Baltimore Branch of the AMERICAN PHARMACEUTICAL ASSOCIATION. At that time, the author suggested the addition of more glycerin to obtain a uniform mixture. This time, with the addition of a drachm of alcohol, a more satisfactory product was obtained.

R̄ 5	Morphine Sulfate	gr. II
	Potassium Iodide	gr. C
	Tincture of Belladonna	℥ II
	Peppermint Water, <i>q. s.</i>	℥ III

A precipitation of morphine alkaloid takes place due to the action of the potassium iodide on the alkaloidal salt, morphine sulfate. There is not enough alcohol in the tincture of belladonna to hold the morphine alkaloid in solution; therefore, it is necessary to add about three drachms of alcohol; this will dissolve the precipitate.

R̄ 6	Antipyrine	gr. XXXVI
	Potassium Citrate	℥ II
	Glycerin	℥ II
	Syrup of Wild Cherry, <i>q. s.</i>	℥ III

* Section on Practical Pharmacy and Dispensing, A. Ph. A., Dallas meeting, 1936.

When this prescription is prepared as written, a thick precipitate will settle. The proper method in compounding is to dissolve the antipyrine in the glycerin and dissolve the potassium citrate in the syrup of wild cherry. After mixing both solutions, the brown precipitate which forms may be dissolved by the addition of a small quantity of alcohol and more glycerin.

℞ 7 Sodium Bromide	℥ III
Ammonium Bromide	℥ III
Elix. I. Q. and S. Phosphates, <i>q. s.</i>	℥ III

The Elixir I. Q. and S. Phosphates is not very stable. In this prescription it is advisable to use the Elixir Iron Quinine and Strychnine. The solution would then be clear without any separation or precipitation.

℞ 8 Potassium Iodide	℥ I
Salicylic Acid	℥ II
Sodium Bicarbonate	℥ II
Tincture Colchicum Seed	℥ III
Aromatic Elixir	
Syr. Sarsap. Comp., <i>q. s.</i>	℥ III

This prescription does not contain sufficient sodium bicarbonate to neutralize the salicylic acid. It is necessary to add two more drachms of sodium bicarbonate to the salicylic acid, adding the aromatic elixir. When the reaction has taken place, filter out the excess sodium bicarbonate and add the other ingredients. The solution is clear without any sediment or precipitation.

℞ 9 Strontium Bromide	12.0
Ammonium Carbonate	8.0
Syrup Tolu	30.0
Water, <i>q. s.</i>	90.0

The difficulty in this prescription is in the fact that the strontium bromide is incompatible with alkalis. Therefore, it is necessary to use ammonium bromide in place of the strontium bromide whereby a clear solution is obtained.

℞ 10 Iodine	gr. I
Potassium Iodide	gr. XXX
Oil of Gaultheria	℥ V
Liquid Albolene	℥ II

If prepared as written, the iodine and potassium iodide separate.

Dissolve the potassium iodide in a small quantity of water. In this solution, dissolve the iodine. Add a small quantity of Aquaphor and add gradually the Liquid Albolene. Finally, add the oil of gaultheria. The resulting preparation is uniform without any separation.

℞ 11 Arsenic Trioxide	0.06
Ext. Nux Vomica	2.00
Quinine Sulfate	0.60
Peppermint Water, <i>q. s.</i>	240.00

None of the powder ingredients is soluble in water, therefore, if compounded as written, the patient may take an overdose. In preparing this prescription, 100 minims of the Liquor Acid Arsenosi which contains 1% arsenic trioxide was used. Also, instead of the quinine sulfate, the more soluble quinine bisulfate could be used. Dissolve the extract of nux vomica in some diluted alcohol. Add all of the solutions and then sufficient peppermint water to make 240.0 cc. In the finished product, there is no precipitation and the solution is perfectly clear.

℞ 12 Camphor	4.00
Salicylic Acid	0.66
Precipitated Sulfur	6.50
Lime Water, <i>q. s.</i>	120.00

When compounding this prescription as written, there is a complete separation of the insoluble material. To properly compound this the camphor and salicylic acid were dissolved in a small quantity of alcohol. Rub up the sulfur with about a drachm of tragacanth, adding the lime water. Finally add the camphor solution to the sulfur and enough lime water to make 120.00 cc.

℞ 13	Phenol	1.0
	Tincture of Iodine	1.0
	Mucilage of Acacia	4.0
	Alcohol	20.0

When compounded as written, a stringy precipitate results. This is probably due to the incompatibility of the alcohol with the acacia. Therefore to dispense a presentable solution, the troublesome mucilage of acacia can be omitted, resulting in a clear solution.

℞ 14	Terebene	℥ IV
	Potassium Iodide	℥ IV
	Codeine Phosphate	gr. XII
	Solution of Ammonium Acetate	℥ IV
	Mucilage of Acacia, <i>q. s.</i>	
	Syrup of Yerba Santa Aromatic <i>ad</i>	℥ XII

When prepared as written, this prescription does not form a very presentable mixture. Triturate the terebene with three drachms of acacia in a dry mortar. Triturate well, adding water drop by drop (about two drachms of water), to form an emulsion. To this nucleus add part of the syrup. Add the Solution of Ammonium Acetate. Separately dissolve the potassium iodide in a half ounce of water and add to the mixture. Finally, using codeine alkaloid instead of *phosphate*, dissolve same in a small quantity of alcohol and add to the remainder of the Aromatic Syrup of Yerba Santa. Finally, mix both solutions and dispense with a "Shake Well" label.

The codeine alkaloid is used instead of the *phosphate* to insure an equal subdivision of doses. Since the mixture is not perfectly clear it is not possible to see whether the codeine is equally subdivided.

℞ 15	Fluidextract of Cannabis	℥ ISS
	Ammonium Chloride	℥ III
	Syrup of Acid Hydriodic, <i>q. s.</i>	℥ IV

The resins of cannabis will be precipitated out by the syrup. Therefore, it will be necessary to add an equal amount of acacia to the cannabis. Dissolve the ammonium chloride in about three drachms of water. To this add the syrup of hydriodic acid and add gradually to the fluidextract of cannabis and acacia. The resulting mixture does not contain any precipitation and is a uniform mixture, suitable for dispensing.

℞ 16	Amytal	gr. IX
	Ephedrine	gr. IVSS
	Calcium Iodide	gr. XXXVI
	Mix and prepare 16 capsules.	

When prepared as written, these capsules form a dark mass in the capsules and are unfit for dispensing. To prepare properly, use a warm mortar. Triturate the calcium iodide with thirty-six grains of heavy magnesium oxide. Separately, triturate the ephedrine with one-half grain of sugar of milk. Mix all together. Lastly, triturate the Amytal with nine grains of heavy magnesium oxide. Add this powder to the former mixture and triturate well. It is essential that no moisture enter, otherwise there will be discoloration.

℞ 17	Thymol	℥ I
	Sodium Borate	℥ IV
	Potassium Bicarbonate	℥ I
	Glycerin	℥ I
	Tincture of Green Soap, <i>q. s.</i>	℥ VIII

This prescription may be compounded in two ways: (1) Triturate the sodium borate with the potassium bicarbonate. Add the glycerin and triturate well. Permit this to stand until reaction has been completed. Separately, dissolve the thymol in the tincture of green soap. Add this solution to the former. The finished product will be clear without any precipitation or separation.

(2) Dissolve the sodium borate and the potassium bicarbonate in a quantity of water. To this solution add about half an ounce of soft soap. Mix well until the solution is clear. Separately, dissolve the thymol in the tincture of green soap. Add this solution to the former and add sufficient tincture of green soap to make the desired quantity. The finished product will be clear without any separation or precipitation.

℞ 18	Collodion	10.0
	Castor Oil	3.0
	Turpentine, <i>q. s.</i>	30.0

If compounded as written, a hard lump will form in the bottle and cannot be poured out. The use of "Flexible collodion" in place of collodion will avert the formation of this lump. To the collodion add the castor oil and turpentine. The resulting product will be clear without any precipitation.

℞ 19	Elixir Iron Quinine and Strychnine Phosphates	90.0
	Elixir Luminal	90.0

When the Elixir Iron Quinine and Strychnine Phosphate was added to the Elixir Luminal, the finished product had a red color, however, on standing, this color turned to green and then to a light green. If the pharmacist were to use the Elixir Iron Quinine and Strychnine N. F. there would be no color changes. This change in color may be due to the phosphate salts in the Elixir I. Q. and S. Phosphates.

℞ 20	Acid Benzoic	
	Sodium Borate <i>aa</i>	℥ I
	Alcohol	℥ IV
	Infusion of Buchu <i>ad</i>	℥ IV

The pharmacist who originally filled this prescription evidently was under the impression that the alcohol was to be used for dissolving the benzoic acid. He therefore proceeded to dissolve the benzoic acid in the alcohol and dissolved the sodium borate in the infusion of buchu. Both solutions were clear. When these were mixed the benzoic acid separated and floated at the top. The correct method for compounding is to make the infusion of buchu and let it cool. Triturate the benzoic acid and the sodium borate together. It may be necessary to add about another half drachm of sodium borate. Dissolve the powders in the infusion of buchu. A clear solution should result. If it is not clear, then it may be necessary to add sufficient sodium borate to neutralize the benzoic acid. Lastly, add the alcohol.

℞ 21	Acid Salicylic	1.5
	Acid Benzoic	3.0
	Alcohol	8.0
	Aquaphor, <i>q. s.</i>	30.0

When the salicylic acid and the benzoic acid are dissolved in the quantity of alcohol stated and then rubbed up with the aquaphor, there is a separation of the alcohol. It would therefore be necessary to use only enough alcohol to dissolve the salicylic and benzoic acids. The less alcohol used in this prescription, the easier it will be to compound. No more than 4.0 cc. should be necessary for this prescription.

℞ 22	Extract Hyoscyamus	gr. $\frac{1}{4}$
	Codeine Sulfate	gr. $\frac{1}{8}$
	Oil of Santal	℥ 8
	Methenamine	gr. V
	D. T. D. in capsules (double) No. XV.	

The physician wrote for double capsules which necessitates the use of a small capsule in which the medication is to be placed. The pharmacist in preparing the above used many ways, but the mass which he finally made was too large for No. 00 capsules. A correct method to compound this would be to triturate the methenamine with about three grains of heavy magnesium oxide (to each capsule). To this add the oil of santal and triturate well. Separately, mix the extract of hyoscyamus and the codeine sulfate. Add this trituration to the former and mix well, until a mass is formed. Divide into the required number of capsules and dispense in double capsules as the physician requested.

℞ 23	Nupercaine	1%
	Menthol	1/4%
	Liquid Albolene, <i>q. s.</i>	℥ 1

The pharmacist had difficulty in dissolving the nupercaine in the liquid albolene. It was not soluble; however, there is a "Nupercaine Base" which is soluble in oils. This should be used in the above prescription.

℞ 24	Phenol	2.0
	Zinc Oxide	
	Talcum	
	Boric Acid <i>aa</i>	15.0
	Glycerin	10.0
	Water, <i>q. s.</i>	100.0

After standing a few days, the above prescription became caked on the bottom of the bottle. The addition of about 20 cc. of glycerin will serve to keep the powders in suspension so that they will not cake.



New system of naming colors devised by Dean B. Judd.—Kenneth L. Kelly is shown at work. (See articles in December JOURNAL.)

The application of the system of color naming is by measuring the spectral reflectance of the substance under study. In actual usage reference standards are employed by visual comparison. Many changes have been recommended as a result of this research.