

HYPODERMIC MEDICATION

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Hypodermic Medication by Frank Webb & John Uri Lloyd

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FRANK WEBB & JOHN URI LLOYD

HYPODERMIC MEDICATION

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BY

FRANK WEBB, M.D.

Member of Connecticut Eclectic Medical
Association, National Eclectic
Medical Association

WITH

PREFATORY REMARKS

BY

JOHN URI LLOYD, Ph.M.

*"Prove all things and hold fast to
that which is good."*

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Ms. A. 1. 1. 1. 1.

DEDICATION

To a dear, tried, and true old friend, one who has given of his all to the ECLECTIC cause,—time, money, and, above all, a master brain,— Stephen B. Munn, M.D., of Waterbury, Connecticut, this work is affectionately dedicated.

FRANK WEBB, M.D.

Bridgeport, Conn., October, 1912.

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Prefatory Remarks Concerning the Pharmacy of Plant Hypodermics

The honor of being invited to contribute this brief Preface is the more appreciated because of the long and pronounced resistance of this writer to some features of this process of medication, a fact well known to the author of this book. It should be stated, however, that the rather pessimistic view heretofore held was not because of any venturesome criticism in a therapeutic direction, but because of pharmaceutical difficulties experienced in the preparation of permanent, representative, and feasible plant hypodermics. This feature of the problem lies within the writer's field, and has, for many years, given him much concern. To this phase of the subject his prefatory remarks must be confined, the object being to introduce a few problems that confront the pharmacist involved in the study of plant hypodermics.

It is very easy to make a hypodermic solution, say by dissolving a grain of morphine sulphate in a dram of distilled water,

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or a gramme of morphine sulphate in 30 cc. of distilled water. The same is true of all water soluble simple substances; but the pharmacy of a drug, from the hypodermic standpoint, differs greatly from the simplicity of merely dissolving a single substance in a single menstruum. To first study a complex vegetable structure in order to determine its desirable parts, to place these in aqueous solutions, and to know that the compound formed is permanent, makes a mighty problem. Even the abstracting of the desirable constituents of a complex vegetable organism, and the holding them in a permanent form in an aqueous menstruum, is in itself a perplexing study, even though the dominating drug constituents are water soluble. Very different is such as this from the mixing together of previously isolated substances that need be only weighed or measured. Let us now consider some of these pharmaceutical problems.

Water as a Solvent. Let it be understood that the simplest plant fragment, be it bark, root, leaf, or flower, contains substances inadmissible or unattainable in hydrohypodermic therapy. Resins, fats, and oils are insoluble in water, the same being true of many glucosids. Where such as these are

important, an aqueous hypodermic cannot, of necessity, represent these features of the drug. As examples may be mentioned such drugs as Iris, Thuja, Leptandra, and Echinacea, whose energetic principles are such as cannot be represented in any aqueous solution.

On the other hand, inert gums, useless glucosids, sugars, and such dissolve in water, often by their very presence causing the final disintegration of other constituents in a solution, thus unbalancing a liquid that, when first made, is truly representative of a drug's valuable constituents. Whoever has experienced the change that occurs in aqueous Stillingia, Gossypium, Urtica, etc., needs no further lesson.

The sugars of plants are prone to ferment, the albuminoids to putrefy. These substances enter naturally into aqueous solutions, producing perplexing and untoward alterations that almost defy explanation. Some alkaloidal salts, naturally very soluble, are seemingly very permanent, but yet, as time passes, they undergo undetermined alterations, or may even partly precipitate from aqueous solutions. As an example we need but mention the Sanguinarine alkaloidal structures. The baneful influence