PHARMACOPŒA GERMANICA

EDITIO ALTERA

THE

GERMAN PHARMACOPŒIA

SECOND EDITION

WHICH, BY AUTHORITY OF THE FEDERAL COUNCIL OF THE GERMAN EMPIRE, REPLACES THE FIRST EDITION ON JANUARY 1, 1883

TRANSLATED BY

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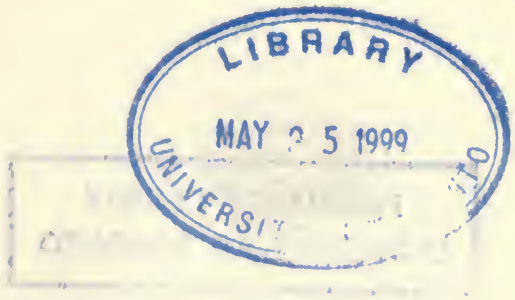

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PREFACE.

DURING the use of the first edition of the Pharmacopœa Germanica it became evident, that it gradually ceased to accomplish its object. Recognizing this fact and following a suggestion of the Imperial Chancellor, the Federal Council (Bundesrath), at its session of June 6, 1878, resolved that the work should be subjected to a revision.

In pursuance of this resolution, a Commission was appointed, consisting of six Clinical Practitioners, six Physicians, six Pharmacologists, six Chemists, and six Pharmacists, together with two high Army Surgeons (Ober-Militärärzte) and one Corps Staff-Apothecary (Corps-Stabsapotheker), the latter three appointed by the Royal Prussian Minister of War. To this Commission was committed the charge of revising and improving the Pharmacopœia of 1872, in compliance with the resolution of the Federal Council.

In order to procure for the Commission a preliminary guide, as a basis for accomplishing the work satisfactorily, the Imperial Chancellor requested the authorities of the German States to call the attention of the Medical and Pharmaceutical Bodies, and especially of prominent individual Medical Officers, Teachers in Universities, Clinical Practitioners and Pharmacists to the proposed Revision, in order to get their views regarding the deficiencies and shortcomings in the Pharmacopœia heretofore in use, and to ascertain what important additions had been made to the department of Therapeutics since its publication.

The communications received in response to this inquiry, together with valuable information from other sources, were collated and arranged so as to form the basis for the subsequent labors of the Commission.

Through the knowledge gained in this manner, it became evident that a large number of articles included in the first edition of the Pharmacopœia should be dismissed, as being no longer of value in accordance with the views at present prevailing in medical science ; and, in regard to new articles, such only should be recommended for admission, the value of which, in the practice of medicine, both from a scientific standpoint and from experience, had been placed beyond all doubt.

It was further shown, that the several articles contained in the Pharmacopœia required material changes in general construction and arrangement of contents, as well as completion by more detailed methods of determining their identity and purity, so as to furnish a sure guide for the control of the quality of medicines kept by the pharmacist.

The Commission having adopted these principles as a basis for carrying on their work, decided, in order to secure harmony of opinion, to publish the general plan so far adopted, together with a list of articles to be dismissed, and the articles recommended for admission, requesting the criticism of specialists in the different fields of science. By these means a large and varied amount of material was again secured, in the contribution of which, most of the German Medical and Pharmaceutical Associations were enabled to take part.

By a special Commission of Veterinary Surgeons and Veterinary Officials, a selection was made of such articles, as are exclusively used in veterinary practice.

It was finally considered necessary that each article should be elaborated critically, and, when necessary, experimentally, by the chemists and pharmacists of the Commission. This was successfully accomplished.

The Commission having procured by these means a very full, thorough and nearly complete outline of its work, it was enabled to bring its labors to a close at their second session.

In the course of the deliberations held by the Commission, for the purpose of revising the Pharmacopœa Germanica, the following special points were decided to be of particular importance.

In the first place, the greatest possible uniformity of arrangement in the description of each article was considered as indispensable. Accordingly, the construction of each article was so arranged that in its first section the physical characters and marks of identity should be described, and in the second section the requirements of quality, purity, etc. In the description of Crude Drugs a similar course was pursued. In the case of Chemical Products, the officinal title of the article is first given, and, when necessary, the directions for its preparation ; then follows a description of its physical and chemical properties, its peculiar reactions as to its identity, and the method of testing its purity ; and finally the manner of preservation ; and, in given cases, the largest single and daily doses.

In the examination of Chemicals, the legal limits of the presence of foreign substances were set forth as closely as possible.

Chemical formulas were not added to the chemicals, nor was a table of atomic weights introduced.

It was not considered essential to the requirements of the Pharmacopœia that the scientific Latin name of plants and animals should be followed by the name of the author.

The crystalline form of chemicals was given only when considered of sufficient practical importance.

In giving directions for the preservation of officinal articles, it was deemed sufficient to confine them to those which are enumerated in Tables B and C. A leading factor in arriving at this decision, was the generally entertained conviction, that the strict requirements regarding the quality of the several articles, in themselves necessitate a suitable method of preservation, and that any neglect of precaution could with certainty be detected by the prescribed tests.

In a few instances it was considered indispensable to mention the necessity of protecting the article from the light; the method of doing so was left to the discretion of the pharmacist.

It was not considered necessary to especially designate the articles that were admitted into the Pharmacopœia in the interest of veterinary medicine; nor were tests of purity prescribed for such articles as are only intended for external use.

The Synonyms were not added to the officinal titles in the text of the Pharmacopœia, but it was considered useful to add a complete list of the same in the form of an appendix.[1]

For scientific determination, the limits of solubility of many substances were given in the text; for practical purposes, however, a special table of approximate solubilities has been appended.

Whenever it was practicable the reactions for determining the identity of a substance, were given in a separate paragraph.

In the directions for testing, the more simple and reliable methods have generally been preferred, and, consequently, volumetric analysis was made obligatory in all cases where the gravimetric method does not afford any more accurate results, or cannot obtain them in a shorter time.

As a rule, the method of testing for any special substance throughout the Pharmacopœia is the same in all cases.

Special attention was further paid to an exact adjustment, whenever possible, of the concentration of any solution to be tested, as well as to the quantity of reagent to be added, and also to the accurate description of any possible reactions, such as turbidity, precipitates, coloration, etc.

[1] The Synonyms of the German Pharmacopœia, as well as other Synonyms, have also been placed in the text of this translation, for the sake of convenience.

EXPLANATION OF TERMS AND ABBREVIATIONS USED IN THE PHARMACOPŒIA.

1. For the expression of weight in the text of the Pharmacopœia, the Gramme is adopted as unity. In expressing measure, however, the several terms *m*, *dm*, *cm*, and *mm* are used.[1]

2. In stating the strength of a solution, such expressions as 1=10, 1=20, etc., are made use of. These terms denote that 1 part of the substance is to be dissolved in 9, or in 19 parts, etc., respectively, of liquid.

When the strength of solution of any reagent is not mentioned, or the reagent is only mentioned by name, it is understood that the solution mentioned in the List of Reagents and Test-Solutions is to be employed.

3. When the specific gravity of an officinal liquid is allowed to vary between certain limits, the same latitude should be allowed at all degrees of temperature given in the Table of Specific Gravities.

4. Distilled Water is always intended where the term Water occurs in the Pharmacopœia, and it should also be used in the preparation of Infusions and Decoctions.

5. Temperature is always expressed in the degrees of the scale of the Centigrade Thermometer.

6. When no especial temperature is given in testing, a temperature of 15° is always intended.

7. In the preparation of Extracts, Tea-mixtures, Ointments, Tinctures, etc., the instructions under their respective general heads should always be followed.

8. In making Pharmaceutical Preparations, when no other special directions are given, the dried vegetable substances should always be employed.

BERLIN, March 31, 1883.

[1] In the translation, the terms are for the most part written in full, to make them conform with similar terms in the United States Pharmacopœia. Gm., however, stands for Gramme or Grammes in most cases, and C.c. for Cubic Centimeter.

TRANSLATOR'S PREFACE.

It becomes more necessary each year for the pharmacists and physicians of our country to become familiar with the Pharmacopœia in use in the German Empire, both as a matter of scientific interest, and to enable the pharmacist to furnish such drugs and medicines, as may be called for by the public or prescribed by the physician, of the standard and composition of the German Pharmacopœia ; or that he may be enabled to point out the differences in composition and strength, as compared with similar articles of the United States Pharmacopœia. This is particularly important, since numerous extracts from the German medical and pharmaceutical journals, which quote the officinal articles of the German Pharmacopœia, find their way into the American and English journals.

The English translation has been made to cover the original as closely as possible. In all cases it was the aim to render the original so that the full meaning and sense of any sentence, and nothing foreign, should appear. In carrying out this plan it happened sometimes that the English version could be made more concise and given in fewer words, while, in other cases, a certain degree of prolixity became necessary to elucidate the whole meaning of the original.

The entire change of the description of the articles in the Second Edition of the German Pharmacopœia made it necessary to re-write the entire work in this translation.

In the original work the synonyms were dropped from the text, and relegated to a special table at the end of the work. This was a wise proceeding, since it lessens the use of these, for the most part, antiquated and superfluous terms, and helps to gradually eliminate them from memory. This consideration, however, has scarcely any weight for the English translation, hence the greater number of the synonyms were quoted, under each article, in order to facilitate reference. Nevertheless, the full, alphabetical table of synonyms, with their corresponding officinal titles, was added, as in the original, near the end of the book.

In the English translation of the officinal titles the nomenclature adopted by the United States Pharmacopœia of 1880 was followed, whenever practicable, and it therefore happened, in some cases, that the English terms are not literal translations of the Latin or German, but these are generally added, together with the corresponding Latin or

English terms, either officinal in our Pharmacopœia, or in common use in this country, enclosed in brackets [—].

It should be distinctly understood, however, that the quotation of these terms, as apparent synonyms, does not imply that the respective preparations are also identical in strength. Unfortunately, this is rather the exception than the rule. For instance, *Tinctura Strychni* of the original is rendered by Tincture of Nux Vomica ; and the corresponding Latin title of the U. S. Ph., *Tinctura Nucis Vomicæ*, was added below in brackets, merely to indicate that both Pharmacopœias have a Tincture of Nux Vomica, without meaning to imply that they are identical in strength, or prepared in the same manner.

The greatest differences, perhaps, exists in Tincture of Musk. The German Pharmacopœia orders it to be prepared with one part of musk to 50 of menstruum, and the U. S. Ph., uses 10 parts of musk to prepare 100 parts of tincture, in the proportion 1 to 10. Notwithstanding these differences, each Pharmacopœia aimed at employing the active material so as to bear a certain and easily remembered proportion to the amount of menstruum, or the finished product.

It may be further mentioned, in regard to certain common names of chemicals, that they do not always refer to similar products among the English-speaking nations. For instance *Sal Tartari*, Salt of Tartar, is one of the synonyms in the German Pharmacopœia for the pure, powdered Carbonate of Potassium, while in this country and England the name is applied to the purified Pearlash, occurring in the form of a granular powder. Also, in the German Pharmacopœia the officinal German name for *Sulfur præcipitatum* is *Schwefelmilch*, and the Latin synonym, *Lac Sulphuris*, which we have accordingly rendered, and added as a synonym in the English translation, as *Milk of Sulphur*. But here, as well as in England, the term *Lac Sulphuris* (Milk of Sulphur) is now commonly applied to that form of precipitated Sulphur which has been prepared by means of sulphuric acid, so that it contains more or less of sulphate of calcium.[1]

A Table of Thermometric Equivalents, and a separate Index of English Terms and Synonyms, and of such Latin terms as differ from those given in the original, together with the systematic names of plants and animals, found in the text of the original, has been appended.

I desire here to acknowledge my indebtedness to my friend, Dr. Charles Rice, of New York, for critically examining the MS., and for affording efficient aid while the work was passing through the press.

BETHLEHEM, PA., March 31, 1884. C. L. L.

[1] See Attfield's Chemistry, American Edition, 1883, pages 300-301.

THE

GERMAN PHARMACOPŒIA.

ACETUM.

VINEGAR. ESSIG.

(*Acetum crudum; Acetum Vini; Weinessig.*)

A clear, nearly colorless or yellow liquid, having an acid taste, and the pungent odor of acetic acid.

Vinegar should be clear, and not be rendered turbid by hydrosulphuric acid.[1] On mixing 20 Gm. of Vinegar with 0.5 C.c. of test solution of nitrate of barium and 1 C.c. of volumetric solution of nitrate of silver, the filtrate should be free from chlorine and sulphuric acid. When 2 volumes of Vinegar are mixed with 1 volume of sulphuric acid, and a layer of 1 volume of test solution of ferrous sulphate be carefully poured on top, no brown zone should appear at the contact of the two liquids. On evaporating 100 Gm. of Vinegar, it should leave not more than 1.5 Gm. of residue, which should have no acrid taste, and, when incinerated, should yield an ash of an alkaline reaction.

Vinegar should contain 6 per cent. of absolute acetic acid; 10 Gm. should, therefore, neutralize 10 C.c. of volumetric solution of potassa.

ACETUM AROMATICUM.

AROMATIC VINEGAR. AROMATISCHER ESSIG.

(*Pestessig; Vierräuberessig.*)

Oil of Lavender, *one part*	1
Oil of Peppermint, *one part*	1
Oil of Rosemary, *one part*	1
Oil of Juniper, *one part*	1

[1] This term is used throughout the translation, in place of aqueous solution of hydrosulphuric acid (sulphuretted hydrogen water) in the original text.

Oil of Cinnamon, *one part*	1
Oil of Lemon, *two parts*	2
Oil of Cloves, *two parts*	2
Alcohol, *three hundred parts*	300
Acetic Acid,[1] *four hundred and fifty parts*	450
Water, *twelve hundred parts*	1200

Dissolve the Oils in the Alcohol; then add the Acetic Acid and Water. Set the turbid mixture aside for a few days, occasionally agitating, and filter.

A clear, colorless liquid, of an acid and aromatic odor; yielding a clear mixture with water in all proportions. Specific gravity, 0.987 to 0.991.

ACETUM DIGITALIS.

VINEGAR OF DIGITALIS. FINGERHUTESSIG.

Digitalis Leaves, *five parts*	5
Alcohol, *five parts*	5
Acetic Acid, *nine parts*	9
Water, *thirty-six parts*	36

Macerate the finely cut leaves in the mixed liquids, with frequent agitation, in a closed bottle, for eight days; then express and filter.

A clear, brownish-yellow liquid, of a sour and very bitter taste, and an acetous odor.

It should be **cautiously** preserved.

Largest single dose	**2.0 Gm.**
Largest daily dose	**10.0 Gm.**

ACETUM PYROLIGNOSUM CRUDUM.

CRUDE PYROLIGNEOUS ACID. ROHER HOLZESSIG.

[*Crude Wood Vinegar.*]

A brown liquid, having an odor of tar and acetic acid, and an acid and somewhat bitter taste. It deposits a tarry substance on standing for some time.

When Crude Pyroligneous Acid is diluted with an equal volume of water, it should be scarcely rendered turbid by nitrate of barium, and not be affected by hydrosulphuric acid; it should contain not less than 6 per cent. of absolute acetic acid, and, therefore, not less than 10 C.c. of volumetric solution of potassa should be required to neutralize 10 Gm. of the Acid.

[1] See *Acidum Aceticum Dilutum.*

ACETUM PYROLIGNOSUM RECTIFICATUM.

Rectified Pyroligneous Acid. Rectificirter Holzessig.

[*Rectified Wood Vinegar.*]

A clear, colorless or yellowish liquid, of an empyreumatic and acetous odor and taste. It should not be rendered turbid by nitrate of barium, or hydrosulphuric acid. It should contain not less than 6 per cent. of absolute acetic acid, and, therefore, not less than 10 C.c. of volumetric solution of potassa should be required to neutralize 10 Gm. of the Acid.

ACETUM SCILLÆ.

Vinegar of Squill. Meerzwiebelessig.

Squill, dried, *five parts*	5
Alcohol, *five parts*	5
Acetic Acid, *nine parts*	9
Water, *thirty-six parts*	36

Macerate for three days, and prepare it like Vinegar of Digitalis, avoiding strong expression in straining.

A clear, yellowish liquid, of a sour, afterward bitter taste, and an acetous odor.

To neutralize 10 Gm. of Vinegar of Squill should require 8.5 C.c. of volumetric solution of potassa, corresponding to 5.1 per cent. of absolute acetic acid.

ACIDUM ACETICUM.

Glacial Acetic Acid. Essigsäure.

[*Acidum Aceticum Glaciale, U. S. Ph.*]

(*Acidum aceticum concentratum; Acetum glaciale; Eisessig.*)

A clear, colorless, volatile, and caustic liquid, of a pungently acid odor, and a strongly acid taste; miscible in all proportions with water, alcohol, and ether. It solidifies when cold, and boils at about 117° C. Specific gravity, 1.064. 1 Gm. of the Acid is sufficient to neutralize 16 C.c. of volumetric solution of potassa, corresponding to 96 per cent. of absolute acetic acid.

On mixing 5 C.c. of the Acid with 15 C.c. of water and 1 C.c. of volumetric solution of permanganate of potassium, the red coloration should not disappear within ten minutes. When diluted with 20 parts of water, it should not be affected by nitrate of barium, nitrate of silver, or hydrosulphuric acid.

ACIDUM ACETICUM DILUTUM.

ACETIC ACID.[1] VERDÜNNTE ESSIGSÄURE.

(*Acetum concentratum.*)

A clear, colorless, and volatile liquid, of an acid odor and taste. Specific gravity, 1.041.

It should be free from an empyreumatic odor. 10 Gm. of the Acid should neutralize 50 C.c. of volumetric solution of potassa, corresponding to 30 per cent. of absolute acetic acid.

On mixing 20 C.c. of the Acid with 1 C.c. of volumetric solution of permanganate of potassium, the red coloration should not disappear within ten minutes. Diluted with 5 parts of water, it should not be affected by nitrate of barium, nitrate of silver, or hydrosulphuric acid.

ACIDUM ARSENICOSUM.

ARSENIOUS ACID. ARSENIGE SÄURE.

[*Acidum Arseniosum, U. S. Ph.; White Arsenic; Arsenious Anhydride.*]

(*Arsenicum album; Arsenigsäureanhydrid.*)

White, porcelain-like or translucent pieces, which, when carefully heated in a glass tube are volatilized and form a white sublimate, or brilliant, glassy, octahedral, or tetrahedral crystals. When thrown upon ignited charcoal, the Acid volatilizes with a garlicky odor.

Arsenious Acid should be completely volatilized by heat, and should be soluble, though slowly, in 15 parts of hot water, without a residue. A solution of the Acid in 10 parts of warm water of ammonia, when supersaturated with hydrochloric acid, should not assume a yellow color.

Arsenious Acid should be **very cautiously** preserved.

Largest single dose..... 0.005 Gm.
Largest daily dose ..... 0.02 Gm.

ACIDUM BENZOICUM.

BENZOIC ACID. BENZOËSÄURE.

[*Sublimed Benzoic Acid.*]

(*Acidum benzoicum sublimatum; Flores Benzoes; Benzoëblumen.*)

Yellowish, or yellowish-brown scales, or needle-shaped crystals, of a silky lustre, prepared by sublimation from Benzoin. The acid has a Benzoin-like and empyreumatic odor. It dissolves in 372 parts of water,

[1] *Acidum aceticum dilutum* is named Acetic Acid, in this translation, as it very nearly corresponds in strength with the Acetic Acid of the U. S. Pharmacopœia.

and is freely soluble in alcohol, ether, and chloroform. It volatilizes in a current of steam.

When heated in a glass tube, it fuses at first to a yellow or light brownish liquid, which is afterward entirely volatilized, or leaves but a slight brown residue.

An aqueous solution of the Acid, treated with ferric chloride, yields a voluminous, brownish-yellow precipitate, which is decomposed, with separation of the Benzoic Acid, on the addition of sulphuric acid.

On dissolving 1 part, each, of Benzoic Acid and permanganate of potassium, in 10 parts of water, in a loosely stoppered test-tube, and heating gently for a short time, the odor of oil of bitter almond should not be evolved when the tube is opened after cooling.

When 0.1 Gm. of the Acid is dissolved in 5 C.c. of boiling water, and 16 drops of solution of permanganate of potassium (1=200) are added to the cold solution, the liquid should become nearly colorless after an interval of eight hours.

ACIDUM BORICUM.

BORIC ACID. BORSÄURE.

[*Boracic Acid.*]

(*Acidum boracicum; Sal sedativum Hombergii; Boraxsäure.*)

Colorless, shining, crystalline scales, unctuous to the touch; soluble in 25 parts of cold, and in 3 parts of boiling water, and in 15 parts of alcohol; also soluble in glycerin. When heated, the Acid melts, and on cooling turns into a glass-like mass.

An aqueous solution (1=50), mixed with a little hydrochloric acid, changes yellow turmeric paper to brown. A solution in alcohol (1=16), or in glycerin (1=40), burns with a green-bordered flame.

The aqueous solution (1=50) should not be affected by hydrosulphuric acid, nitrate of barium, or nitrate of silver; and sulphocyanate of potassium should not produce a red, nor an excess of water of ammonia, a blue coloration.

ACIDUM CARBOLICUM.

CARBOLIC ACID. CARBOLSÄURE.

[*Phenol; Phenic Acid.*]

(*Acidum phenylicum; Acidum carbolicum crystallisatum; Phenylsäure; Phenylalkohol; Phenol.*)

A neutral, colorless, or but slightly reddish, volatile mass, of a peculiar, but not disagreeable odor, having caustic properties, and consisting

of long, slender, and pointed crystals. It fuses between 35 and 44° C. to a highly refractive liquid, having the specific gravity 1.060 ; boils at about 180 to 184° C., and burns with a white flame, leaving no residue. It is soluble in 20 parts of water, and in all proportions of alcohol, ether, chloroform, glycerin, or disulphide of carbon ; also in solution of soda.

A solution of 20 parts of the Acid in 10 parts of alcohol acquires a dirty-green color on the addition of 1 part of solution of ferric chloride. This liquid, even when diluted with 1,000 parts of water, presents a beautiful, rather permanent, violet color.

Even in a solution containing only 1 part of Carbolic Acid in 50,000 of water, bromine still produces a white, flocculent precipitate.

It should be **cautiously** preserved.

Largest single dose..... **0.1 Gm.**
Largest daily dose..... **0.5 Gm.**

ACIDUM CARBOLICUM CRUDUM.

CRUDE CARBOLIC ACID. ROHE CARBOLSÄURE.

A clear, yellowish, or yellowish-brown liquid, of an unpleasant, empyreumatic odor, heavier than water, and of a neutral reaction. Not entirely soluble in water, but freely soluble in alcohol or ether.

On shaking 10 volumes of the Acid with 90 volumes of a mixture, consisting of equal parts, by weight, of solution of soda and water, it should not leave more than 1 volume of a liquid or semiliquid residue. The alkaline liquid separated from the latter, and strongly supersaturated with diluted sulphuric acid, should yield a yellowish, or yellowish-brown oil, having the characteristic reactions of Carbolic Acid, and being almost entirely soluble in 30 volumes of water.

ACIDUM CARBOLICUM LIQUEFACTUM.

LIQUEFIED CARBOLIC ACID. VERFLÜSSIGTE CARBOLSÄURE.

Carbolic Acid, *one hundred parts*..... 100
Water, *ten parts*..... 10

Mix them.

A clear, colorless liquid, having the odor of Carbolic Acid, and forming a clear solution with 18 parts of water.

When 1 Gm. of the Liquefied Acid is dissolved in water to measure one liter, not more than 51.6 to 52.6 C.c. of this solution should be required to combine with the bromine set free from a mixture, consisting of 50 C.c., each, of the volumetric solutions of bromate and bromide of potassium, and of 5 C.c. of sulphuric acid. The filtered liquid should

no longer impart a blue color to paper impregnated with volumetric solution of starch.

It should be cautiously preserved.

ACIDUM CHROMICUM.

CHROMIC ACID. CHROMSÄURE.

Scarlet, brilliant crystals, deliquescent in the air; or a lighter red, loose, woolly mass; freely soluble in water, and in alcohol. When heated, the Acid turns darker and then fuses, with the evolution of oxygen. Heated with hydrochloric acid, it develops chlorine.

For dispensing, the Acid may be kept dissolved in an equal weight of water.

It should be cautiously preserved.

ACIDUM CITRICUM.

CITRIC ACID. CITRONENSÄURE.

Large, colorless, translucent crystals, permanent in the air, but efflorescing at a moderate heat; fusing at about 165° C. and becoming charred at a red heat. 1 part of Citric Acid is soluble in 0.54 part of water, in 1 part of alcohol, and in about 50 parts of ether.

The aqueous solution remains clear, when mixed with an excess of lime-water; but, when afterward heated, it throws down a white precipitate, which is almost entirely redissolved on cooling.

Nitrate of barium or oxalate of ammonium should not produce more than a slight opalescence in an aqueous solution of the Acid (1=10). The powdered Acid should not be affected by hydrosulphuric acid. On adding an alcoholic solution of acetate of potassium to an aqueous solution of the Acid (1=3), no white, crystalline precipitate should be produced.

ACIDUM FORMICICUM.

FORMIC ACID. AMEISENSÄURE.

A clear, colorless, volatile liquid, having a pungent, but no empyreumatic odor, and a strongly acid taste. Specific gravity, 1.060 to 1.063. When mixed with solution of subacetate of lead, it throws down a white, crystalline precipitate.

When the Acid is mixed with 5 parts of water, and saturated by yellow oxide of mercury, a clear solution results which, on heating, evolves a gas and deposits a white precipitate, which rapidly turns gray and afterward changes into shining, metallic, coalescing globules.

10 Gm. of the Acid should neutralize 54.35 C.c. of volumetric solution of soda, corresponding to 25 per cent. of absolute Formic Acid.

When diluted with 5 parts of water, the Acid should not be affected by nitrate of silver, nor, after being neutralized with water of ammonia, by chloride of calcium, or by hydrosulphuric acid. On diluting 1 Gm. of the Acid with 5 Gm. of water and heating for ten minutes with 1 Gm. of yellow oxide of mercury, it should yield a neutral filtrate.

ACIDUM HYDROCHLORICUM.

HYDROCHLORIC ACID. SALZSÄURE.

[*Muriatic Acid.*]

(*Acidum muriaticum; Acidum hydrochloratum; Reine Chlorwasserstoffsäure.*)

A clear, colorless liquid, volatilized by heat; having the specific gravity 1.124, and containing 25 per cent. of absolute Hydrochloric Acid. With nitrate of silver it yields a white, curdy precipitate, which is soluble in water of ammonia. When the Acid is heated with black oxide of manganese, chlorine is given off.

On diluting a portion of the Acid with 5 volumes of water, it should not be rendered blue by volumetric solution of starch, nor be affected by hydrosulphuric acid. If a small quantity of a solution of tartaric acid be added to a portion of this diluted acid, and the mixture be supersaturated with water of ammonia, the addition of sulphide of ammonium should produce, at most, only a green color. Nitrate of barium, either alone, or when followed by volumetric solution of iodine, added in sufficient quantity to color the liquid yellowish, should not produce a turbidity in the diluted acid.

When 3 C.c. of Hydrochloric Acid and 6 C.c. of water are mixed in a test-tube (about 3 centimeters in diameter), and sufficient test-solution of iodine added to produce a yellow color, then a few pieces of zinc introduced, and, after inserting into the upper portion of the tube a loose pellet of cotton, the mouth covered with a piece of white filtering paper, which has been moistened in the center with a drop of concentrated solution of nitrate of silver (1=2),—the spot moistened with the silver solution should not be colored immediately yellow, nor within half an hour; nor should it turn brownish-black around the edge.

To neutralize 2 Gm. of the Acid should require 13.7 C.c. of volumetric solution of potassa.

It should be cautiously preserved.

ACIDUM HYDROCHLORICUM CRUDUM.

CRUDE HYDROCHLORIC ACID. ROHE SALZSÄURE.

[*Crude Muriatic Acid.*]

(*Acidum muriaticum crudum; Rohe Chlorwasserstoffsäure.*)

A clear or opalescent, more or less yellow liquid; fuming in the air, having a specific gravity not below 1.158, and containing not less than 29 per cent. of absolute Hydrochloric Acid.

It should be cautiously preserved.

ACIDUM HYDROCHLORICUM DILUTUM.

DILUTED HYDROCHLORIC ACID. VERDÜNNTE SALZSÄURE.

[*Diluted Muriatic Acid.*]

Hydrochloric Acid, *one part*	1
Water, *one part*	1

Mix them.

A clear, colorless liquid, having the specific gravity 1.061, and containing 12.5 per cent. of absolute Hydrochloric Acid.

ACIDUM LACTICUM.

LACTIC ACID. MILCHSÄURE.

A clear, colorless, or slightly yellowish, syrupy liquid; inodorous, and of a purely acid taste. Specific gravity, 1.210 to 1.220. Miscible, in all proportions, with water, alcohol, and ether. When warmed with permanganate of potassium, it gives off the odor of aldehyde; at a higher temperature it chars, and burns with a bright flame, without leaving a residue.

When the Acid is gently warmed, it should not emit the odor of fatty acids, and should not be colored, when mixed with an equal volume of sulphuric acid.

When diluted with 10 parts of water, it should not be affected by hydrosulphuric acid, nitrate of barium, nitrate of silver, or oxalate of ammonium; nor by an excess of lime-water, even on heating.

If the Acid be evaporated with an excess of oxide of zinc nearly to dryness, on a water-bath, and the residue exhausted with 3 parts of absolute alcohol, the filtered liquid should not leave a sweet residue on evaporation.

ACIDUM NITRICUM.

NITRIC ACID. SALPETERSÄURE.

A clear, colorless liquid, volatilized by heat. Specific gravity, 1.185. It contains 30 per cent. of absolute Nitric Acid. Metallic copper, when warmed with the Acid, dissolves in it with evolution of yellowish-red vapors, yielding a blue liquid.

When diluted with 5 volumes of water, the Acid should not be affected by hydrosulphuric acid, or nitrate of silver; nor, when supersaturated by water of ammonia, and treated with a little solution of tartaric acid, by sulphide of ammonium. Nitrate of barium should produce not more than an opalescence within five minutes.

When the Acid is diluted with twice its volume of water, and agitated with a small quantity of chloroform, the latter should not assume a violet tint, not even after the addition of tin filings, and gently warming.

To neutralize 3 Gm. of the Acid should require 14.3 C.c. of volumetric solution of potassa.

It should be **cautiously** preserved.

ACIDUM NITRICUM FUMANS.

FUMING NITRIC ACID. RAUCHENDE SALPETERSÄURE.

(*Acidum nitroso-nitricum; Spiritus nitri fumans.*)

A clear, reddish-brown liquid, emitting suffocating, yellowish-red fumes. Specific gravity, 1.450 to 1.500.

A portion diluted with 150 volumes of water should not be rendered turbid by nitrate of barium, or nitrate of silver, within five minutes.

It should be **cautiously** preserved.

ACIDUM PHOSPHORICUM.

PHOSPHORIC ACID. PHOSPHORSÄURE.

A clear, colorless, and odorless liquid, having the specific gravity 1.120, and containing 20 per cent. of Phosphoric [Orthophosphoric] Acid. When neutralized with carbonate of sodium and treated with nitrate of silver, it affords a yellow precipitate soluble in water of ammonia, and in nitric acid.

When treated with nitrate of silver, the Acid should not become turbid, either while cold, or on being warmed. It should not be affected by hydrosulphuric acid even after the lapse of a considerable time; and, when diluted with 3 volumes of water, no immediate turbidity should

be produced by nitrate of barium, or, after previous supersaturation with water of ammonia, by oxalate of ammonium. The Acid should remain clear, when mixed with four times its volume of alcohol. When 2 volumes of the Acid are mixed with 1 volume of sulphuric acid and 1 volume of test-solution of ferrous sulphate be carefully poured on top, no brown zone should be produced at the line of contact of the two liquids.

When to 5 C.c. of Phosphoric Acid, mixed with 5 C.c. of diluted sulphuric acid, test-solution of iodine and metallic zinc are added, and the mixture treated by the method given under *Acidum Hydrochloricum*, no change should be produced on the paper, moistened with concentrated solution of nitrate of silver (1=2).

ACIDUM PYROGALLICUM.

Pyrogallic Acid. Pyrogallussäure.

Very light, white, shining scales or needles, of a bitter taste; soluble in 2.3 parts of water, forming a clear, colorless, neutral solution; also soluble in alcohol, or ether. The Acid fuses at 131° C. and, when carefully heated sublimes without leaving a residue.

The aqueous solution turns rapidly brown on the addition of solution of soda. Freshly prepared solution of ferrous sulphate (1=3) renders it deep indigo-blue, and solution of ferric chloride brownish-red. It almost immediately throws down metallic silver from a solution of nitrate of silver.

ACIDUM SALICYLICUM.

Salicylic Acid. Salicylsäure.

White, light, needle-shaped crystals, or a white, loose, crystalline powder, having a sweetish-sour, acrid taste. Soluble in 538 parts of cold water; easily soluble in hot water, and in hot chloroform, and very freely in alcohol, or ether. The Acid fuses at about 160° C.; and when carefully heated, sublimes without decomposition, but when rapidly heated, it volatilizes and exhales the odor of carbolic acid. The aqueous solution, when treated with ferric chloride, assumes a bluish-violet color, which appears reddish-violet in a highly dilute solution.

A solution of Salicylic Acid in 6 times its weight of cold sulphuric acid should be almost without color. If the Acid is dissolved in an excess of solution of carbonate of sodium, and shaken with ether, the latter should leave no residue on evaporation. The alcoholic solution of the Acid, when allowed to evaporate spontaneously, should leave a

perfectly white residue. A solution of 1 part of the Acid in 10 parts of alcohol, mixed with a little nitric acid, should not be affected by nitrate of silver.

ACIDUM SULFURICUM.

SULPHURIC ACID. SCHWEFELSÄURE.

[*Acidum Sulphuricum, U. S. Ph.*]

(*Acidum sulfuricum rectificatum; Gereinigte Schwefelsäure; Concentrirte Schwefelsäure.*)

A colorless, inodorous liquid, of an oily consistence, and volatilized by heat. It has a specific gravity from 1.836 to 1.840, and contains 94 to 97 per cent. of absolute Sulphuric Acid. When diluted with water, it yields, with nitrate of barium, a white precipitate, which is insoluble in acids.

When the Acid is carefully diluted with 5 volumes of alcohol, the liquid should not become turbid for a long time; and 10 C.c. of a mixture of 1 volume of the Acid with 5 volumes of water, when treated, while cold, with 3 or 4 drops of volumetric solution of permanganate of potassium, should not at once destroy the color of the latter. When diluted with 20 volumes of water, it should not be affected by hydrosulphuric acid or nitrate of silver, nor, when first supersaturated by water of ammonia, by sulphide of ammonium. On pouring upon the Acid a layer of an equal volume of test-solution of ferrous sulphate, no brown zone should appear at the line of contact of the two liquids.

When 2 C.c. of Sulphuric Acid are diluted with 10 C.c. of water, then mixed with test-solution of iodine and metallic zinc, and the mixture treated by the method given under *Acidum Hydrochloricum*, no change should be produced on the paper moistened with concentrated solution of nitrate of silver (1=2).

It should be **cautiously** preserved.

ACIDUM SULFURICUM CRUDUM.

CRUDE SULPHURIC ACID. ROHE SCHWEFELSÄURE.

(*Englische Schwefelsäure.*)

A clear, colorless or brownish liquid, of an oily consistence. It should have a specific gravity not below 1.830, containing not less than 91 per cent. of absolute Sulphuric Acid.

It should be **cautiously** preserved.

ACIDUM SULFURICUM DILUTUM.

DILUTED SULPHURIC ACID. VERDÜNNTE SCHWEFELSÄURE.

[*Acidum Sulphuricum Dilutum, U. S. Ph.*]

Sulphuric Acid, *one part*	1
Water, *five parts*	5

Mix them.

Specific gravity from 1.110 to 1.114.

ACIDUM TANNICUM.

TANNIC ACID. GERBSÄURE.

(*Tannin; Acidum gallo-tannicum.*)

A white or yellowish powder, or a scarcely colored, shining, loose mass; soluble in 1 part of water, or in 2 parts of alcohol, to a clear liquid having a faint, peculiar odor, free from the smell of ether, an astringent taste, and an acid reaction. It is soluble in 8 parts of glycerin, and insoluble in absolute ether. From an aqueous solution (1=5) Tannic Acid is precipitated by sulphuric acid, or by chloride of sodium; and ferric chloride produces a bluish-black precipitate which disappears on the addition of sulphuric acid.

A solution of the Acid in 5 parts of water should remain clear on the addition of an equal volume of alcohol, and the alcoholic liquid should not become turbid when treated with 0.5 volume of ether.

When 1 Gm. is ignited, it should not leave more than an imponderable residue.

ACIDUM TARTARICUM.

TARTARIC ACID. WEINSÄURE.

(*Sal essentiale tartari; Weinsteinsäure.*)

Large, colorless, transparent, prismatic crystals, often cohering together in crusts, and permanent in the air. When charred by heat, they exhale the odor of burned sugar. They are soluble in 0.8 part of water and in 2.5 parts of alcohol.

The aqueous solution yields, with solution of acetate of potassium, a crystalline precipitate; with an excess of lime-water, a flocculent precipitate, which soon becomes crystalline, and is soluble in solution of chloride of ammonium, or in solution of soda. The latter solution, by boiling, yields the precipitate in a gelatinous form, but on cooling, it is redissolved.

The aqueous solution of the Acid (1=10) should not be rendered turbid by sulphate of calcium, nitrate of barium, or oxalate of ammonium. The powdered Acid should not be affected by dropping a solution of hydrosulphuric acid upon it.

ADEPS SUILLUS.

LARD. SCHWEINESCHMALZ.

[*Adeps, U. S. Ph.*]

(*Axungia Porci; Axungia porcina.*)

The fat of the omentum and kidneys of *Sus Scrofa*, prepared by melting, washing, and then freeing it from water. It should have a soft, uniform consistence; should melt to a clear, colorless liquid between 38 and 42° C., and should be free from rancid odor.

Hot alcohol shaken with Lard, then cooled and mixed with an equal quantity of water, should not alter litmus paper. If 2 parts of Lard are boiled with 2 parts of solution of potassa and 1 part of alcohol until a clear mixture is formed, then evaporated on a water-bath to a soft soap, the latter should be soluble in a mixture of 50 parts of water and 10 parts of alcohol.

ÆTHER.

ETHER. ÆTHYLÄTHER.

[*Sulphuric Ether.*]

(*Æther sulfuricus; Naphtha Vitrioli; Äther; Schwefeläther.*)

A clear, colorless, mobile, and volatile liquid, of a peculiar odor and taste. It boils at 34 to 36° C., and is miscible, in all proportions, with alcohol and fatty oils. Specific gravity 0.724 to 0.728.

Blotting-paper saturated with it should be free from odor after the Ether has evaporated, and blue litmus paper moistened with it should not turn red. When Ether is strongly agitated with an equal volume of water, the latter should not increase in volume more than one-tenth.

ÆTHER ACETICUS.

ACETIC ETHER. ESSIGÄTHER.

(*Naphtha Aceti; Essignaphtha.*)

A clear, colorless, volatile liquid, of a peculiar, pleasant, and refreshing odor; miscible in all proportions with alcohol and ether, and boiling at from 74 to 76° C. Specific gravity 0.900 to 0.904.

Acetic Ether should not at once render litmus paper red. When strongly agitated with an equal volume of water, the latter should not increase in volume more than one-tenth.

ALOE.

CAPE ALOES. ALOË.

(*Aloë Capensis, vel lucida.*)

The inspissated juice of the leaves of *Aloe ferox, Aloe spicata, Aloe vulgaris, Aloe lingua*, and probably of some other species of *Aloe*, from the Cape of Good Hope.

Dark brown masses, of a peculiar odor and taste, readily breaking into large conchoidal pieces of a glassy lustre, and into small, sharp-edged, reddish to light brown, translucent chips. When heated on a water-bath, the mass becomes soft, but should not run together. When thoroughly dried and finely pulverized, Cape Aloes yields a yellow powder, which should not cake at 100° C., nor change in color. When added to pure, boiling chloroform, it leaves the latter colorless, and imparts only a very slight yellowish tint to pure ether.

Five parts of Cape Aloes added to 10 parts of boiling water should yield an almost clear solution, from which about 3 parts should again separate on cooling. An alcoholic solution (1=5) should remain clear, even in the cold.

ALUMEN.

ALUM. KALI-ALAUN.

[*Aluminii et Potassii Sulphas; Sulphate of Aluminium and Potassium; Potassa Alum.*]

(*Crystallisirter Alaun.*)

Hard, colorless, transparent, octahedral crystals or crystalline fragments, covered with a slight film of powder; soluble in 10.5 parts of water; insoluble in alcohol. The aqueous solution has an acid reaction, a sweetish and very astringent taste, and yields, with solution of soda, a white, gelatinous precipitate, which is soluble in an excess of the reagent, reappearing again on the addition of chloride of ammonium.

The aqueous solution (1=20) should not be affected by hydrosulphuric acid, and not assume a bluish tint within ten minutes after being treated with test-solution of ferrocyanide of potassium. The precipitate produced with solution of soda, at the ordinary temperature, is completely dissolved by an excess of the reagent, without evolving the odor of ammonia; and this solution should not be rendered turbid by hydrosulphuric acid.

ALUMEN USTUM.

DRIED ALUM. GEBRANNTER ALAUN.

[*Alumen Exsiccatum, U. S. Ph.*]

Expose 100 parts of powdered Alum, in a thin layer, to the temperature of 50° C. until it has lost 30 parts by weight ; then place the residue in a porcelain capsule and heat it, by means of a sand-bath, stirring constantly and not allowing the temperature to exceed 160° C., until it is reduced to 55 parts.

A white powder, which should not lose more than 10 per cent. by weight when exposed to a moderate red heat. It should be completely, though slowly, soluble in 25 parts of water.

ALUMINIUM SULFURICUM.

SULPHATE OF ALUMINIUM. ALUMINIUMSULFAT.

[*Aluminii Sulphas, U. S. Ph.*]

White crystalline pieces, soluble in 1.2 part of cold, but much more freely in hot water ; insoluble in alcohol. The aqueous solution has an astringent and acid taste, and an acid reaction. With nitrate of barium it yields a white precipitate, insoluble in hydrochloric acid ; and, with solution of soda, a colorless, gelatinous precipitate, soluble in an excess of the reagent.

A solution of 1 Gm. of the Salt in 10 C.c. of water should be clear, and, after the addition of 1.2 Gm. of chloride of barium and a few drops of test-solution of phenolphtaleïn, it should require from 8.3 to 8.7 C.c. of volumetric solution of potassa to produce a permanent red color. One drop of test-solution of tannic acid should produce no blue tint, or but a very faint one, in a solution of 1 Gm. of the Salt in 10 C.c. of water.

AMMONIACUM.

AMMONIAC. AMMONIAKGUMMI.

(*Gummi-resina Ammoniacum ; Persisches Ammoniak(gummi)harz.*)

A gum-resin obtained from *Dorema ammoniacum.*

In loose or more or less united tears, or in large lumps of a brownish color ; the recent fracture having a cloudy, white color. Ammoniac is brittle when cold, but it softens when heated, without becoming clear by melting. It has a peculiar odor, and a bitter, somewhat acrid and unpleasant, aromatic taste. When rubbed with three times its weight of water, it forms a white emulsion which is colored yellow and afterward brown by solution of soda. If Ammoniac be added to three times its

weight of hydrochloric acid, the latter should not become colored, even when heated to 60° C.

For pharmaceutical use it may be chilled, then reduced to powder, and separated from impurities by means of a sieve.

AMMONIUM BROMATUM.

BROMIDE OF AMMONIUM. AMMONIUMBROMID.

[*Ammonii Bromidum, U. S. Ph.*]

(*Bromammonium.*)

A white, crystalline powder, freely soluble in water, sparingly soluble in alcohol, and volatilized by heat. An aqueous solution to which a little chlorine water and chloroform has been added, colors the latter reddish-yellow ; and, when heated with solution of soda, it evolves ammonia.

When a small quantity of the powdered Salt is spread upon a porcelain tile, it should not redden moistened blue litmus paper ; nor should it at once acquire a yellow color, when a few drops of diluted sulphuric acid are dropped upon it.

Five C.c. of an aqueous solution of the Salt (1=10), mixed with 1 drop of solution of ferric chloride and agitated with chloroform, should impart no violet tint to the latter. If 3 Gm. of well-dried Bromide of Ammonium are dissolved in 100 C.c. of water, and 10 C.c. of this solution treated with a few drops of test-solution of chromate of potassium, not more than 31.1 C.c. of volumetric solution of nitrate of silver should be required, until the red color ceases to disappear.

AMMONIUM CARBONICUM.

CARBONATE OF AMMONIUM. AMMONIUMCARBONAT.

[*Ammonii Carbonas, U. S. Ph.*]

(*Ammoniacum carbonicum ; Sal volatile siccum ; Kohlensaures Ammoniak ; Reines Hirschhornsalz.*)

Dense, hard, translucent, fibro-crystalline masses, of a strong ammoniacal odor ; effervescing with acids, efflorescent when exposed to air, and often becoming coated with a white powder. The Salt is volatilized by heat and dissolves completely, but slowly, in 4 parts of water.

The aqueous solution of the Salt (1=20), when supersaturated with acetic acid, should not be affected by hydrosulphuric acid, nitrate of barium, or oxalate of ammonium ; nor, when shaken with a small quantity of chlorine water and some chloroform, should it impart to the latter a violet tint.

The aqueous solution (1=20), when treated with nitrate of silver in excess, and then supersaturated with nitric acid, should not become brown, nor exhibit more than an opalescent cloudiness within two minutes.

If 1 Gm. of the Salt is supersaturated with nitric acid, and evaporated to dryness, on a water-bath, it should yield a colorless residue, volatilizable at a higher temperature.

AMMONIUM CHLORATUM.

CHLORIDE OF AMMONIUM. AMMONIUMCHLORID.

[*Ammonii Chloridum, U. S. Ph.*]

(*Ammoniacum hydrochloratum; Sal ammoniacum depuratum; Salmiak.*)

White, hard, fibro-crystalline cakes, or a white, colorless, inodorous, crystalline powder; permanent in the air; volatilizable by heat; soluble in 3 parts of cold water, and in an equal weight of boiling water; very sparingly soluble in alcohol. The aqueous solution yields, with nitrate of silver, a white, curdy precipitate, soluble in water of ammonia; and, when warmed with solution of soda, it evolves ammonia.

The aqueous solution (1=20) should not be affected by hydrosulphuric acid, nitrate of barium, or diluted sulphuric acid. When acidulated with hydrochloric acid, and treated with ferric chloride, it should not be colored red. With solution of sulphide of ammonium it should yield no black precipitate, nor acquire more than a dark-green tint.

When 1 Gm. of the Salt is evaporated to dryness with a little nitric acid, on a water-bath, it should yield a white residue, which volatilizes at a higher temperature.

AMMONIUM CHLORATUM FERRATUM.

AMMONIO-CHLORIDE OF IRON. EISENSALMIAK.

(*Ammonium muriaticum martiatum; Ammoniacum hydrochloratum ferratum; Ammoniumeisenchlorid.*)

Chloride of Ammonium, *thirty-two parts*	32
Solution of Chloride of Iron, *nine parts*	9

Mix them in a porcelain vessel, and, by means of a steam-bath, stirring constantly, evaporate to dryness.

An orange-yellow powder, deliquescent in the air, and freely soluble in water. It contains about 2.5 per cent. of iron.

It should be protected from the light.

AMYGDALÆ AMARÆ.

BITTER ALMONDS. BITTERE MANDELN.

[*Amygdala Amara, U. S. Ph.*]

(*Semen Amygdali amarum.*)

The seeds of *Prunus Amygdalus;* unsymmetrically ovate, compressed, about 2 centimeters long and 1.5 centimeter broad; pointed at one end, where the hilum is situated, and having a thickness of about 1 centimeter at the opposite, blunt, roundish end. The brown, scurfy, membranaceous testa, traversed by sparsely branched, fibro-vascular bundles, is readily separable, by soaking the seeds in water, from the purely white cotyledons, which have a very bitter taste.

AMYGDALÆ DULCES.

SWEET ALMONDS. SÜSSE MANDELN.

[*Amygdala Dulcis, U. S. Ph.*]

(*Semen Amygdali dulce.*)

The seeds of *Prunus Amygdalus;* unsymmetrically ovate, compressed, pointed at one end, where the hilum is situated, and obtusely rounded at the opposite end. The larger seeds should be selected, averaging about 2.25 centimeters in length, and not less than 1.5 centimeter in width. The brown, membranaceous, scurfy testa, traversed by sparsely branched, fibro-vascular bundles, is readily separable, by soaking the seeds in water, from the purely white cotyledons, which should have a bland, oily, and at the same time, a sweet, mucilaginous taste, free from rancidity.

AMYLIUM NITROSUM.

NITRITE OF AMYL. AMYLNITRIT.

[*Amyl Nitris, U. S. Ph.*]

A clear, yellowish, volatile liquid, having a rather pleasant, fruity odor, and a burning, aromatic taste; scarcely soluble in water; miscible, in all proportions, with alcohol and ether. It boils at 97 to 99° C., and, when ignited, burns with a yellow, luminous, and smoky flame.

Ten C.c. of Nitrite of Amyl should not destroy the alkaline reaction of 2 C.c. of a mixture of 1 part of water of ammonia and 9 parts of water. When mixed with three times its volume of a mixture of equal parts of water of ammonia and absolute alcohol, and gently warmed with a little nitrate of silver, it should not produce a brown or black color.

It should be cautiously preserved, and protected from the light, with a few crystals of tartrate of potassium in the bottom of the bottle.

AMYLUM TRITICI.

WHEAT STARCH. WEIZENSTÄRKE.

[*Amylum, U. S. Ph.*]

The fecula of the fruit of *Triticum vulgare*. A very fine, white powder, which, when placed in water, and examined under a lens magnifying 150 times, appears to consist of nearly round granules, most of which are quite small, a smaller number being much larger, with but few of intermediate size. When moistened with alcohol, the larger granules appear to be lenticular or plano-convex. The admixture of the much larger granules of potato starch may easily be detected by the microscope. When Wheat Starch is burned, the ashes should not exceed 1 per cent. When 1 part is boiled with 50 parts of water, it yields, when cold, a cloudy, mucilaginous liquid, having no peculiar odor or taste, and not affecting litmus paper.

ANTIDOTUM ARSENICI.

ANTIDOTE TO ARSENIOUS ACID. GEGENGIFT DER ARSENIGENSÄURE.

[*Ferri Oxidum Hydratum cum Magnesia, U. S. Ph.*]

Solution of Tersulphate of Iron, *one hundred parts*	100
Water, *two hundred and fifty parts*	250

Mix and add, while shaking, a previously prepared mixture of

Magnesia, *fifteen parts*	15
Water, *two hundred and fifty parts*	250

avoiding a rise of temperature as much as possible.

A brown mixture, which, before use, must be well shaken.

It should be freshly prepared when required for use.

For this purpose there should always be kept ready on hand at least 500 Gm. of the Solution of Tersulphate of Iron and 150 Gm. of Magnesia.

APOMORPHINUM HYDROCHLORICUM.

HYDROCHLORATE OF APOMORPHINE. APOMORPHIN-HYDROCHLORAT.

[*Apomorphinæ Hydrochloras, U. S. Ph.*]

A white, or grayish-white, dry, crystalline powder, of a neutral reaction; soluble in water, and almost insoluble in ether, or chloroform; turning soon greenish on exposure to light and moist air. Nitric acid colors it blood-red. It is soluble in an excess of solution of soda; the solution, when exposed to the air, rapidly turns purple, and after-

ward black ; and it reduces solution of nitrate of silver. The precipitate thrown down [in its aqueous solution] by bicarbonate of sodium rapidly turns green when exposed to the air.

The aqueous solution of the Salt should be colorless, or but slightly colored. A Salt which yields an emerald-green solution with 100 parts of water should be rejected.

It should be cautiously preserved and protected from the light.

Largest single dose ..... **0.01 Gm.**
Largest daily dose ..... **0.05 Gm.**

AQUÆ DESTILLATÆ.

AROMATIC DISTILLED WATERS. DESTILLIRTE WÄSSER.

The Aromatic Distilled Waters should possess the peculiar odor and taste of the volatile principles of the substances from which they are prepared.

Before dispensing them, any undissolved ethereal oil should be separated by filtration.

Colored and ropy waters should be rejected.

They should not be affected by hydrosulphuric acid.

AQUA AMYGDALARUM AMARUM.

BITTER ALMOND WATER. BITTERMANDELWASSER.

[*Aqua Amygdalæ Amaræ, U. S. Ph.*[1]]

Contuse

Bitter Almonds, *twelve parts* 12

and free them from fixed oil, as much as possible, by means of a press, without heat ; then reduce them to a fine powder ; and, having introduced the powder into a capacious retort (which is best so arranged that steam, from a suitable apparatus, may be conducted through it) add, and mix it well with

Common Water, *eighty parts* 80

then add

Alcohol, *one part* 1

and allow the mixture to stand for twelve hours in the retort, well covered. Then carefully distil off

Eleven parts 11

into a well-cooled receiver containing

Alcohol, *one part* 1

[1] Is made by dissolving 1 part of Oil of Bitter Almond in 999 parts of Water.

Now assay the amount of hydrocyanic acid in the distillate, and dilute it with a sufficient amount of a mixture of

Alcohol, *one part* 1
and
Water, *five parts* 5
so that 1 part of hydrocyanic acid will be contained in 1,000 parts of the Bitter Almond Water.

Dilute 27.0 Gm. of Bitter Almond Water with 54.0 Gm. of water; add enough of an aqueous suspension of magnesia to render the liquid opaque, and then treat it with a few drops of test-solution of chromate of potassium. Afterward add volumetric solution of nitrate of silver, in small portions at a time, until, after stirring, the red color due to chromate of silver no longer disappears. The number of cubic centimeters of the silver solution consumed, multiplied by 0.01, indicates the percentage of absolute hydrocyanic acid.

Bitter Almond Water should be clear, or nearly so, and have a strong odor of oil of bitter almond and hydrocyanic acid. The odor of the former must remain after removing the hydrocyanic acid with nitrate of silver.

It should be **cautiously** preserved.

Bitter Almond Water is to be dispensed when Cherry Laurel Water is prescribed.

Largest single dose ..... **2.0 Gm.**
Largest daily dose ..... **8.0 Gm.**

AQUA CALCARIÆ.

SOLUTION OF LIME. KALKWASSER.

[*Liquor Calcis, U. S. Ph.; Lime Water.*]

(*Aqua Calcariæ ustæ; Aqua Calcis; Calcaria soluta.*)

Lime, *one part* 1
Slake it with
Water, *four parts* 4
then mix it, by stirring, with
Water, *fifty parts* 50
After a few hours pour away the liquid; add to the residue
Water, *fifty parts* 50
and mix.

A clear, colorless liquid, of a strongly alkaline reaction.

When 100 C.c. of Lime Water are mixed with from 3.5 to 4.0 C.c. of volumetric hydrochloric acid, the mixture should have no acid reaction.

AQUA CARBOLISATA.

CARBOLIC ACID WATER. CARBOLWASSER.

Liquefied Carbolic Acid, *thirty-three parts*	33
Water, *nine hundred and sixty-seven parts*	967

Mix them.

A clear liquid, having the odor of carbolic acid.

AQUA CHLORATA.

CHLORINE WATER. CHLORWASSER.

[*Aqua Chlori, U. S. Ph.*]

(*Aqua Chlori; Chlorum solutum; Liquor Chlori; Aqua oxymuriatica.*)

A clear, yellowish-green liquid, volatilizable by heat, having a suffocating odor, instantly decolorizing blue litmus paper, and containing at least 4 parts of chlorine in 1,000 parts.

When 25.0 Gm. of Chlorine Water are added to an aqueous solution of 1 Gm. of iodide of potassium mixed with a little solution of starch, not less than 28.2 C.c. of volumetric solution of hyposulphite of sodium should be required to combine with the liberated iodine.

It should be protected from the light.

AQUA CINNAMOMI.

CINNAMON WATER. ZIMMTWASSER.

Cinnamon, bruised, *one part*	1
Alcohol, *one part*	1
Common Water, *a sufficient quantity.*	
Macerate for twelve hours and distil	
Ten parts	10

Cinnamon Water should be cloudy, becoming clear in time.

AQUA DESTILLATA.

DISTILLED WATER. DESTILLIRTES WASSER.

A clear, colorless, inodorous, and tasteless liquid, volatilizing without leaving a residue.

It should not become turbid, when treated with mercuric chloride, nitrate of silver, or with double its volume of lime water.

AQUA FLORUM AURANTII.

ORANGE FLOWER WATER. ORANGENBLÜTHENWASSER.

[*Aqua Aurantii Florum, U. S. Ph.*]

(*Aqua florum Naphæ; Pomeranzenblüthenwasser.*)

A clear, colorless, or slightly opalescent liquid, having the agreeable odor of orange flowers.

It should be protected from the light.

AQUA FŒNICULI.

FENNEL WATER. FENCHELWASSER.

Fennel, bruised, *one part*	1
Common Water, *a sufficient quantity* to obtain by distillation	
Thirty parts	30

Fennel Water should be slightly cloudy.

AQUA MENTHÆ CRISPÆ.

CURLED-MINT WATER. KRAUSEMINZWASSER.

Curled-Mint, cut, *one part*	1
Common Water, *a sufficient quantity* to obtain, by distillation,	
Ten parts	10

It should be somewhat cloudy.

AQUA MENTHÆ PIPERITÆ.

PEPPERMINT WATER. PFEFFERMINZWASSER.

Peppermint, cut, *one part*	1
Common Water, *a sufficient quantity* to obtain, by distillation,	
Ten parts	10

It should be somewhat cloudy.

AQUA PICIS.

TAR WATER. THEERWASSER.

Tar, *one part* 1
Mix it with powdered, washed and dried
Pumice Stone, *three parts* 3
and preserve the mixture for use.
Of this mixture take
Four parts 4
shake it for five minutes with
Water, *ten parts* 10
and then filter.

Tar Water should be clear, having a yellowish to brownish-yellow color, and the odor and taste of tar.

It should be freshly made when prescribed; or at most only a small quantity may be kept ready made.

AQUA PLUMBI.

LEAD WATER. BLEIWASSER.

[*Liquor Plumbi Subacetatis Dilutus; Diluted Solution of Subacetate of Lead, U. S. Ph.*]

(*Aqua plumbica; Aqua saturnina.*)

Solution of Subacetate of Lead, *one part* 1
Water, *forty-nine parts* 49

Mix them.

Lead Water should be somewhat cloudy.

It should be shaken before it is dispensed.

Lead Water, *Aqua Plumbi*, should be dispensed when *Aqua Plumbi Goulardi* is ordered.

AQUA ROSÆ.

ROSE WATER. ROSENWASSER.

Oil of Rose, *four drops.*
Shake it for some time with
Tepid Water, *one thousand grammes,*
and then filter.

Rose Water should be clear.

ARGENTUM FOLIATUM.

SILVER LEAF. BLATTSILBER.

Thin leaves, having the lustre of pure silver and dissolving in nitric acid to a clear, colorless solution, which affords with hydrochloric acid a white, curdy precipitate, insoluble in nitric acid, but readily soluble in water of ammonia.

ARGENTUM NITRICUM.

NITRATE OF SILVER. SILBERNITRAT.

[*Argenti Nitras Fusus, U. S. Ph.; Fused Nitrate of Silver.*]

(*Lapis infernalis; Argentum nitricum fusum.*)

White, or grayish-white, shining, small sticks, fusible by heat, and exhibiting a radial, crystalline fracture; yielding clear and colorless solutions with 0.6 part of water, with 12.2 parts of alcohol, and with water of ammonia. The aqueous solution is neutral, and, on the addition of hydrochloric acid, throws down a white flocculent precipitate, readily soluble in water of ammonia, but insoluble in nitric acid.

The aqueous solution (1=10), when mixed with four times its volume of diluted sulphuric acid and heated to boiling, should not become turbid. When the aqueous solution is precipitated by hydrochloric acid, the filtrate should leave no residue on evaporation.

It should be cautiously preserved.

Largest single dose ..... **0.03 Gm.**
Largest daily dose ..... **0.2 Gm.**

ARGENTUM NITRICUM CUM KALIO NITRICO.

NITRATE OF SILVER WITH NITRATE OF POTASSIUM. SALPETERHALTIGES SILBERNITRAT.

[*Argenti Nitras Dilutus; Diluted Nitrate of Silver, U. S. Ph.*]

(*Argentum nitricum fusum mitigatum; Lapis infernalis nitratus; Salpeterhaltiger Höllenstein.*)

Nitrate of Silver, *one part* 1
Nitrate of Potassium, *two parts* 2

Mix and melt the Salts carefully together; then pour the fused mass into suitable moulds, so that it may be formed into small sticks.

White, or grayish-white, hard, small sticks, having a porcelain-like

and scarcely crystalline fracture. If 1 Gm. of the compound is dissolved in 10 C.c. of water, and mixed with 20 C.c. of volumetric solution of chloride of sodium and 10 drops of test-solution of chromate of potassium, the liquid should require not more than 0.5 to 1.0 C.c. of volumetric solution of Nitrate of Silver, until the red color remains permanent.

It should be cautiously preserved.

ASA FŒTIDA.

ASAFETIDA. ASANT.

(*Gummi-resina Asa fœtida; Stinkasant; Teufelsdreck.*)

A gum-resin obtained from species of *Ferula* (*Peucedanum*), especially from *Ferula Scorodosma*, and *Ferula Narthex*, growing in the western parts of High-Asia. It occurs in loose or united tears, or in larger masses, externally of a grayish-violet and brown color, internally white; when broken, the fracture at first has a red tint, changing afterward to brown.

Asafetida has a very peculiar odor and taste. When triturated with three times its weight of water it yields a whitish emulsion, which turns yellow on the addition of solution of soda. If hydrochloric acid is poured upon Asafetida, no strong effervescence should take place, and, after standing for six hours, the acid should scarcely be colored. On ignition, it should leave not more than 10 per cent. of ash.

For pharmaceutical use it may be chilled and powdered, and the impurities removed by means of a sieve.

ATROPINUM SULFURICUM.

SULPHATE OF ATROPINE. ATROPINSULFAT.

[*Atropinæ Sulphas, U. S. Ph.*]

(*Schwefelsaures Atropin.*)

A white, crystalline powder, yielding neutral solutions with its own weight of water, and with three times its weight of alcohol. Insoluble in ether and chloroform.

When 0.001 Gm. of the Salt is heated in a test-tube until white fumes escape, then 1.5 Gm. sulphuric acid added, the heat continued until the mixture begins to become brown, and then immediately 2 Gm. of water be added, an agreeable and very peculiar odor is developed; if a small crystal of permanganate of potassium is then added, the odor of oil of bitter almond is evolved. The aqueous solution is rendered turbid by solution of soda, but not by water of ammonia. Even when di-

luted with 1,000 parts of water, the solution still has a bitter and acrid taste.

It should be very cautiously preserved.

Largest single dose..... **0.001 Gm.**
Largest daily dose ..... **0.003 Gm.**

AURO-NATRIUM CHLORATUM.

CHLORIDE OF GOLD AND SODIUM. NATRIUMGOLDCHLORID.

[*Auri et Sodii Chloridum, U. S. Ph.*]

(*Aurum chloratum natronatum; Aurum muriaticum natronatum; Chlorgoldnatrium.*)

Dissolve with a gentle heat

Pure Gold, *sixty-five parts* 65

in a mixture of

Nitric Acid, *sixty-five parts* 65
Hydrochloric Acid, *two hundred and forty parts* 240

Dilute the solution with

Water, *two hundred parts*..... 200

and dissolve in the same,

Chloride of Sodium, pure and dry, *one hundred parts*..... 100

Then evaporate the liquid, while stirring, by means of a water-bath, to dryness.

An orange-yellow powder, entirely soluble in 2 parts of water; partially soluble in alcohol. When exposed to a red heat, it is decomposed, metallic gold being separated.

No fumes should be given off, when a glass rod wetted with water of ammonia is brought near it. When 0.5 Gm. of the Salt is slowly ignited in a covered porcelain crucible, the residue, after being well washed with water, should not weigh less than 0.15 Gm., corresponding to 30 per cent. of metallic gold.

It should be cautiously preserved.

Largest single dose..... **0.05 Gm.**
Largest daily dose ..... **0.2 Gm.**

BALSAMUM COPAIVÆ.

COPAIBA. COPAIVABALSAM.

[*Copaiba, U. S. Ph.; Balsam of Copaiba.*]

A resinous juice derived from species of *Copaifera*, especially from *Copaifera officinalis*, and *Copaifera guianensis*, growing in South America.

A transparent, brownish-yellow liquid, not at all, or but slightly fluorescent, having a peculiar aromatic odor, and a persistently acrid and bitterish taste. The less fluid sorts should be selected, having a specific gravity from 0.960 to 0.990, and leaving, when evaporated by means of a water-bath, a light-brown resin, which, when cold, is amorphous, transparent, and friable. On mixing 1 part of Copaiba with 20 parts of disulphide of carbon, and shaking the liquid with a few drops of a cold mixture of equal parts of sulphuric acid and fuming nitric acid, the mixture should not assume a red or violet color.

When 1 part of Copaiba is strongly agitated with 5 parts of water, at a temperature of 50° C., it forms a turbid mixture, which, by the heat of a water-bath, should soon separate again into two transparent strata.

BALSAMUM NUCISTÆ.

NUTMEG CERATE. MUSCATBALSAM.

[*Nutmeg Balsam.*]

(*Ceratum Myristicæ.*)

Yellow Wax, *one part*	1
Olive Oil, *two parts*	2
Expressed Oil of Nutmeg, *six parts*	6

Melt them together, by means of a water-bath, strain and pour the mass into suitable forms.

It has a brownish-yellow color and an aromatic odor.

BALSAMUM PERUVIANUM.

BALSAM OF PERU. PERUBALSAM.

(*Balsamum Peruvianum nigrum; Balsamum Indicum.*)

A resinous juice obtained from the trunk of *Toluifera Pereiræ* (*Myroxylon Pereiræ*), by scorching the bark.

A liquid having a color varying from brownish-red to deep brown, transparent in thin layers; not capable of being drawn out in strings; having an agreeable odor and a very acrid and bitter taste. It has a specific gravity of 1.137 to 1.145, is not sticky, nor becomes dry when exposed to the air. It forms a clear solution with an equal weight of alcohol. A mixture of 3 parts of the Balsam and 1 part of disulphide of carbon remains clear; but by the further addition of 8 parts of the latter, a brownish-black resin separates. The clear liquid decanted from the resin should not have a deeper than a pale-brownish color, and should not exhibit a fluorescence, or but very faintly. When 1 Gm. of

the Balsam is strongly agitated with 5 Gm. of petroleum benzin, and set aside for a short time, then 30 drops of the liquid allowed to evaporate spontaneously in a porcelain capsule—the yellowish, oily looking residue, even when gently warmed, should not exhale the odor of oil of turpentine, storax, or copaiba ; nor should this residue exhibit a blue or bluish-green color, even on warming, when mixed with 5 drops of strong nitric acid (sp. gr. 1.300 to 1.330).

When 5 drops of the Balsam are strongly agitated with 3 C.c. of water of ammonia, not more than a slight, rapidly collapsing foam should be produced, and the mixture should not become gelatinous within twenty-four hours.

When 10 drops of the Balsam are rubbed with 20 drops of sulphuric acid, a uniform, tough, cherry-red mixture should result ; by washing this mixture, after a few minutes, with cold water, it should yield a resinous residue, which is brittle when cold. When distilled with 200 parts of water, the Balsam should not yield an essential oil.

BENZINUM PETROLEI.

PETROLEUM BENZIN. PETROLEUMBENZIN.

[*Benzinum, U. S. Ph.; Benzin; Petroleum Ether.*]

(*Petroleumäther.*)

The colorless, non-fluorescent fractional distillate of petroleum, of the specific gravity 0.640 to 0.670 ; distilling over, almost completely, between 55 and 75° C., having a strong, but not disagreeable odor, and being easily inflammable. When 2 parts of Benzin are shaken with a cold mixture of 1 part of sulphuric acid and 4 parts of fuming nitric acid, the mixture should not become colored, nor acquire the odor of oil of bitter almonds.

BENZOË.

BENZOIN. BENZOË.

[*Benzoinum, U. S. Ph.*]

(*Resina Benzoë ; Benzoëharz.*)

A resin obtained from *Styrax Benzoin.*

A brownish-gray mass, often with holes, friable, mixed with tears and granules brighter than the rest, or with flat, brownish-yellow pieces, brighter internally.

Benzoin dissolves almost wholly in 5 parts of alcohol at a gentle heat, leaving but a few vegetable fragments ; and the filtered solution, when mixed with water, yields a milky liquid of an acid reaction.

BISMUTUM SUBNITRICUM.

SUBNITRATE OF BISMUTH. BASISCHES WISMUTNITRAT.

[*Bismuthi Subnitras, U. S. Ph.*]

(*Bismuthum hydrico-nitricum; Magisterium Bismuthi; Basisches salpetersaures Wismuthoxyd.*)

Bismuth, *two parts* 2
Nitrate of Sodium, *one part* 1

Having introduced them into an iron vessel, expose this to a low red heat, and, as soon as the mass begins to swell, stir it until the metal is finely divided and scarcely visible. When partially cooled add to the mass

Water, *five parts* 5

and

Solution of Soda, *three parts* 3

Boil for a few minutes, collect the finely divided Bismuth and accompanying oxide on a filter, wash them with water to completely remove all traces of alkali, and, having dried this residue, gradually add to it

Nitric Acid, *eight parts* 8

keeping the whole at a temperature of 80 to 90° C. for a few minutes; then filter through asbestos, evaporate to *six parts*, and allow the liquid to cool.

Wash the resulting crystals several times with water, slightly acidulated with nitric acid; then rub 1 part of the Salt with 4 parts of water to a uniform paste, and gradually add it, while stirring, to 21 parts of boiling water. As soon as the precipitate has subsided pour off the still warm, supernatant liquid; collect the precipitate on a strainer, let it drain completely, wash it with an equal bulk of cold water, and, having allowed it to drain again, dry it at a temperature of 30° C.

A white, micro-crystalline powder, having an acid reaction. It loses from 3 to 5 per cent. of its weight at a temperature of 120° C. When ignited it gives off yellowish-red vapors, leaving a residue of 79 to 82 parts of oxide of bismuth.

0.5 Gm. of Subnitrate of Bismuth should dissolve to a clear liquid in 25 C.c. of diluted sulphuric acid without the evolution of carbonic acid gas. When a portion of this solution is supersaturated with water of ammonia, the colorless filtrate should remain unaffected by hydrosulphuric acid. Another portion, diluted with more water, and completely precipitated with hydrosulphuric acid, yields a filtrate which should leave no residue on evaporation.

Subnitrate of Bismuth forms, with nitric acid, a clear solution, which is not rendered turbid by nitrate of silver, nor by solution of nitrate of barium (1=50). When the Salt is heated with solution of soda in excess, it should not give off ammonia. When this liquid is filtered and heated in a test-tube, with a few pieces of bright iron wire and a little zinc filings, the escaping gas should not blacken a piece of paper moistened with solution of nitrate of silver (1=2) within one hour.

BOLUS ALBA.

White Bole. Weisser Thon.

[*Native Hydrated Silicate of Aluminium.*]

(*Weisser Bolus; Argilla.*)

A whitish, friable, earthy substance; soiling the fingers when touched; somewhat tenacious when moist, disintegrating in water, without dissolving; consisting principally of silicate of aluminium and water.

It should not effervesce with hydrochloric acid, and, when washed with water, it should not leave a sandy residue.

BORAX.

Borate of Sodium. Natriumborat.

[*Sodii Boras, U. S. Ph.; Biborate of Sodium.*]

(*Natrum biboricum; Natrum biboracicum; Borax; Zweifach borsaures Natron.*)

Hard, white crystals or crystalline pieces; soluble in 17 parts of cold water, and in one-half its weight of boiling water; also freely soluble in glycerin; but insoluble in alcohol.

The aqueous solution, mixed with a little hydrochloric acid, turns turmeric paper brown. When the Salt is brought, on a platinum-loop, into the flame, it colors the latter yellow.

The aqueous solution (1=50) should not be affected by hydrosulphuric acid, or carbonate of ammonium; and, when acidulated with nitric acid, it should not effervesce; and nitrate of barium, or nitrate of silver, should produce not more than an opalescence, within five minutes.

BROMUM.

Bromine. Brom.

[*Brominium.*]

A dark reddish-brown, volatile liquid, having the specific gravity 2.9 to 3.0, passing off in vapor at the ordinary temperature, with evolution of yellowish-red fumes. It is soluble in 40 parts of water; freely solu-

ble in alcohol, ether, disulphide of carbon, and chloroform, forming dark reddish-yellow solutions.

Bromine is readily dissolved by solution of soda. An aqueous solution (1 = 40) shaken with an excess of powdered iron, yields a liquid, which, after the addition of a little ferric chloride and chloroform, should not color the latter violet.

It should be cautiously preserved.

BULBUS SCILLÆ.

SQUILL. MEERZWIEBEL.

[*Scilla, U. S. Ph.*]

The inner scales of the bulb of *Urginea maritima* (*Scilla maritima*), cut into strips, averaging about 3 millimeters in thickness. They are yellowish-white, translucent, and marked with prominent, transverse lines.

Squill has a nauseous, bitter taste.

CALCARIA CHLORATA.

CHLORINATED LIME. CHLORKALK.

[*Calx Chlorata, U. S. Ph.; Chloride of Lime.*]

(*Calcaria hypochlorosa; Calx chlorata.*)

A white or whitish powder, having a chlorine-like odor; only partially soluble in water, and containing, at least, 20 per cent. of available chlorine. It dissolves in acetic acid with abundant evolution of chlorine; and, when this solution is diluted with water, and filtered, it yields a white precipitate with oxalate of ammonium.

When 0.5 Gm. of Chlorinated Lime is triturated with 100 C.c. of water; then mixed with 2 Gm. of iodide of potassium, 20 drops of hydrochloric acid, and a little solution of starch, it should require 28.5 C.c. of volumetric solution of hyposulphite of sodium to combine with the liberated iodine.

Aqueous solutions of Chlorinated Lime should be filtered before being dispensed.

CALCARIA USTA.

LIME. GEBRANNTER KALK.

[*Calx, U. S. Ph.; Burned Lime.*]

(*Calcaria; Calx viva.*)

Dense, whitish masses, which, when moistened with half their weight of water, become strongly heated, and crumble to a white powder; and

which form, with 3 or 4 parts of water, a thick, uniform, pasty mass, almost entirely soluble in nitric acid, with scarcely any effervescence. This solution, diluted with water and mixed with acetate of sodium, yields a white precipitate with oxalate of ammonium.

CALCIUM CARBONICUM PRÆCIPITATUM.

PRECIPITATED CARBONATE OF CALCIUM. CALCIUMCARBONAT.

[*Calcii Carbonas Præcipitatus, U. S. Ph.*]

(*Calcaria carbonica præcipitata: Praecipitirter kohlensaurer Kalk.*)

A white, micro-crystalline powder, almost insoluble in water. It dissolves in acetic acid with effervescence, forming a solution which yields a white precipitate with oxalate of ammonium.

Shaken with 50 parts of water, it yields a filtrate which should have no alkaline reaction.

The aqueous solution (1=50) prepared by the aid of acetic acid, should not be affected by nitrate of barium. With nitrate of silver and some nitric acid it should afford, at most, only an opalescence.

The aqueous solution (1=50) prepared by the aid of hydrochloric acid, should not be affected when supersaturated with water of ammonia, nor should it assume more than a deep-green color on the subsequent addition of sulphide of ammonium.

CALCIUM PHOSPHORICUM.

PHOSPHATE OF CALCIUM. CALCIUMPHOSPHAT.

(*Calcaria phosphorica ; Phosphorsaure Kalkerde.*)

Pour upon

Crystalline Carbonate of Calcium, *twenty parts* 20

a mixture of

Hydrochloric Acid, *fifty parts* 50

Water, *fifty parts* 50

When the action of the acid has ceased in the cold, apply a gentle heat. Decant the clear liquid and mix it with an excess of freshly prepared chlorine water; then heat it until the odor of chlorine is all expelled, and digest for half an hour with

Hydrate of Calcium, *one part* 1

To the filtered liquid, slightly acidulated with acetic acid, add gradually, and while stirring, a filtered solution of

Phosphate of Sodium, *sixty-one parts* 61

in

Boiling Water, *three hundred parts* 300

Then set the whole aside for a few hours. Collect the resulting crystalline precipitate upon a moistened linen strainer, and wash it with water until the washings, acidulated with nitric acid, are rendered but slightly opalescent by nitrate of silver.

When the precipitate has completely drained, press it strongly, dry it at a gentle heat, and reduce it to powder.

A light, white, crystalline powder, insoluble in water, difficultly soluble in cold acetic acid, but readily soluble, without effervescence, in hydrochloric or nitric acid.

A solution of the Salt, prepared with the aid of nitric acid and treated with nitrate of silver, yields a yellow precipitate when carefully neutralized with dilute water of ammonia.

After the addition of an excess of acetate of sodium, it yields a white precipitate with oxalate of ammonium. When the Salt is moistened with a solution of nitrate of silver, it turns yellow, which does not occur when the Salt has been previously exposed for some time to a red heat on platinum foil. When ignited, the Salt should lose from 25 to 26 per cent. of its weight. When the Salt is shaken with 20 parts of water, the mixture filtered and the filtrate acidulated with acetic acid, the liquid should not be affected by nitrate of barium.

The aqueous solution of the Salt (1 = 20), prepared with the aid of nitric acid, should not be rendered more than opalescent by nitrate of silver within two minutes ; another portion of the same aqueous solution, when supersaturated with water of ammonia and mixed with sulphide of ammonium, should yield a white precipitate.

CALCIUM PHOSPHORICUM CRUDUM.

Crude Phosphate of Calcium. Rohes Calciumphosphat.

A white, or grayish-white powder, soluble in hydrochloric acid with slight effervescence, and leaving a small residue undissolved.

If a small portion of the Salt is moistened with a solution of nitrate of silver, it will assume a yellow color.

CALCIUM SULFURICUM USTUM.

Calcined Sulphate of Calcium. Gebrannter Gyps.

[*Calcined Gypsum ; Plaster of Paris.*]

(*Calcaria sulfurica usta ; Gypsum ustum.*)

A white amorphous powder which, when mixed with half its weight of water, should form a hard mass within five minutes.

CAMPHORA.

CAMPHOR. CAMPHER.

A stearopten obtained by sublimation from *Cinnamomum Camphora.*

White, crystalline, friable masses, of a peculiar odor and taste; evaporating in a short time without a residue when placed in an open capsule; covering the sides of bottles partially filled with it, with brilliant crystals. It is almost insoluble in water; freely soluble in ether, chloroform or alcohol; and, when moistened with these liquids, it may be converted into powder.

CANTHARIDES.

CANTHARIDES. SPANISCHE FLIEGEN.

[*Cantharis, U. S. Ph.; Spanish Flies.*]

(*Muscæ Hispanicæ; Canthariden.*)

The beetle *Lytta vesicatoria*, in as perfect a state as possible. Cantharides have a beautiful, shining, green color with a bluish cast, especially when warm. From 1.5 to 3 centimeters long, and from 6 to 8 millimeters broad. On ignition they should not yield over 8 per cent. of ash.

They should be cautiously preserved.

Largest single dose..... 0.05 Gm.
Largest daily dose..... 0.15 Gm.

CARBO LIGNI PULVERATUS.

POWDERED CHARCOAL. GEPULVERTE HOLZKOHLE.

(*Carbo præparatus; Carbo pulveratus.*)

The commercial, kiln-burned Charcoal is heated in a properly closed vessel until vapors cease to escape, and, as soon as cold, reduced to powder.

The powder should be black, and nothing of it dissolved by alcohol. When heated it should burn without flame on platinum foil and without leaving more than a small quantity of ash.

CARRAGEEN.

CHONDRUS. IRLÄNDISCHES MOOS.

[*Chondrus, U. S. Ph.; Irish Moss.*]

(*Carragaheen; Fucus crispus; Perlmoos.*)

The thallus of *Chondrus crispus* (*Fucus crispus*), and of *Gigartina mammillosa.*

It is not over one hand high, foliaceous, and divided into broader and narrower segments. Other *Floridæ* and *Algæ* should not be present, except in very small quantities. When 30 parts of water are poured upon 1 part of Chondrus, it becomes softly cartilaginous, and, when boiled, yields a mucilage of an insipid taste which becomes rather thick when cold, and which is not colored by iodine.

CARYOPHYLLI.

CLOVES. GEWÜRZNELKEN.

[*Caryophyllus, U. S. Ph.*]

(*Caryophylli aromatici.*)

The unexpanded flowers of *Eugenia caryophyllata* (*Caryophyllus aromatica*).

The rounded four-cornered, brown ovary, 10 to 15 millimeters in length, and reaching 4 millimeters in thickness, widening into the four segments of the calyx, beyond which project the four lighter colored petals, closing together in a globular form. A transverse fracture of Cloves, when examined with a lens, shows around the margin, large oil-cells, from which exudes ethereal oil when longitudinal sections of Cloves are pressed on blotting paper.

Cloves should have a strong odor and taste.

CASTOREUM.

CASTOR. BIBERGEIL.

(*Castoreum Americanum, vel Canadense, vel Anglicum.*)

A sac connected with the genital organs of *Castor Americanus*. It consists of two outer, not easily separable membranes, and two inner ones which are less prominent and traverse the contents of the sac. The contents, in a dry state, are dark brown, hard and shining; yielding a light brown powder of a peculiar odor, of an acrid, bitter taste, and which should not melt at 100° C.

CATECHU.

CATECHU. CATECHU.

(*Terra Japonica; Pegu-Catechu.*)

An extract prepared in India from *Uncaria Gambir* and *Acacia Catechu*.

Catechu, when placed in glycerin and examined under a magnifying power of 200 diameters, is seen to have a crystalline appearance. It has

an astringent, bitterish taste, with a sweetish aftertaste. When boiled with 10 parts of alcohol, it yields a clear, dark brown solution, and the undissolved residue should not exceed 15 per cent. This solution, when cold, filtered, and diluted with 100 parts of alcohol, is colored green by ferric chloride. When Catechu is boiled with 10 parts of water, it yields a turbid solution, reddening litmus, and remaining turbid upon cooling. The undissolved residue, dried at 100° C., should be less than 15 per cent.

On ignition, Catechu should leave not more than 6 per cent. of ash.

CERA ALBA.

White Wax. Weisses Wachs.

Bleached Beeswax; melting to a colorless liquid at about 64° C. When 2 parts of alcohol are mixed with 7 parts of water, the mixture allowed to stand at the temperature of 15° C., until all air-bubbles have disappeared, and the liquid then brought to a specific gravity of 0.965 to 0.975 by the addition of water,—pure Wax will float on the surface, or, at least, be suspended in the middle of this liquid.

White Wax has the characteristics, and responds to the chemical tests of yellow wax, except in color. It should not have a rancid odor.

CERA FLAVA.

Yellow Wax. Gelbes Wachs.

(*Bienenwachs.*)

A yellow mass, breaking, when cold, with a granular, dull, non-crystalline fracture. At 63 to 64° C. it melts to a clear, yellowish-red liquid, having an agreeable odor. Under the microscope the Wax has, after cooling, a confused-crystalline appearance. If 1 part of alcohol is mixed with 3 parts of water by weight, and the mixture allowed to stand at 15° C. until all air-bubbles have disappeared,—a piece of the wax immersed in it should be kept suspended, or at least rise from the bottom, when the specific gravity of the liquid is brought to between 0.955 and 0.967 by the careful addition of water or diluted alcohol.

One part of Wax should dissolve in 300 parts of boiling alcohol of the specific gravity 0.830, leaving but a very slight, brownish-yellow residue. This solution deposits, upon cooling, a white, crystalline, pulpy mass, and, when filtered, the clear, light yellow filtrate should not become turbid on the addition of water, nor redden blue litmus paper, or but very slightly. If 1 part of the Wax is boiled for one hour with 300 parts of

alcohol of the specific gravity 0.960, with addition of 1 part of anhydrous carbonate of sodium, the filtered liquid, when perfectly cold, should not afford a precipitate with hydrochloric acid.

CERUSSA.

CARBONATE OF LEAD. BLEIWEISS.

[*Plumbi Carbonas, U. S. Ph.; White Lead.*]

(*Plumbum carbonicum; Plumbum hydriço-carbonicum.*)

A heavy, white powder, readily soiling the fingers; or very friable pieces, insoluble in water; soluble, with effervescence, in diluted nitric or acetic acid, forming a solution which yields a black precipitate with hydrosulphuric acid, and a white one with diluted sulphuric acid.

In a mixture of 1 part of nitric acid and 2 parts of water, Carbonate of Lead should dissolve completely, or leave but a slight residue. The precipitate thrown down in this solution by solution of soda is redissolved by an excess of the precipitant. The resulting alkaline solution should not become permanently turbid, when shaken with a drop of diluted sulphuric acid, nor, when completely precipitated with this acid, should it yield a filtrate, which is rendered turbid by ferrocyanide of potassium, or by an excess of water of ammonia.

When ignited, Carbonate of Lead should yield not less than 85 per cent. of oxide of lead.

It should be cautiously preserved.

CETACEUM.

SPERMACETI. WALRAT.

(*Sperma Ceti.*)

The concrete portion of the contents found in the cavities of the head of the sperm whale, *Physeter*, especially of *Physeter macrocephalus*, prepared by repeated expression and recrystallization.

Large scaly, crystalline masses, having the specific gravity 0.943; melting, at 50 to 54° C., to a clear, colorless, almost inodorous liquid. One part of Spermaceti should dissolve in 40 parts of boiling alcohol, from which it crystallizes again upon cooling, and the filtered liquid should not change litmus paper, nor afford an abundant precipitate with water; on repeating this test with the addition of 1 part of anhydrous carbonate of sodium, it yields a filtrate which should not become more than cloudy, when it is acidulated.

CHARTA NITRATA.

NITRATE OF POTASSIUM PAPER. SALPETERPAPIER.

[*Charta Potassii Nitratis, U. S. Ph.; Saltpeter-paper.*]

Dissolve

Nitrate of Potassium, *one part* 1

in

Water, *five parts* 5

Soak bibulous paper in the solution and dry it.

CHARTA SINAPISATA.

MUSTARD PAPER. SENFPAPIER.

[*Charta Sinapis, U. S. Ph.*]

Paper covered with powdered mustard from which the fixed oil has been removed.

The layer of mustard should be free from rancid odor and adhere well to the paper.

When moistened with water, Mustard Paper should soon give off a strong odor of ethereal oil of mustard.

CHININUM BISULFURICUM.

BISULPHATE OF QUININE. CHININBISULFAT.

[*Quininæ Bisulphas, U. S. Ph.*]

(*Chininum sulfuricum acidum; Chininum sulfuricum neutrale; Saures schwefelsaures Chinin; Zweifach schwefelsaures Chinin.*)

White, shining, prismatic crystals, of a bitter taste, yielding, with 11 parts of water, or with 32 parts of alcohol, a blue, fluorescent liquid of an acid reaction. When either of these solutions is diluted with about 200 parts of water and mixed with 50 parts of chlorine water, it turns green on dropping water of ammonia into it. The aqueous solution of the Salt is rendered turbid by nitrate of barium, but not by nitrate of silver. It fuses when heated in a test-tube to 80° C. When 100 parts are dried at the temperature of 100° C., the Salt is reduced to 77 parts.

After evaporating a mixture of 2 Gm. of the Salt and 1 Gm. of water of ammonia to dryness, the residue should respond to the tests given under *Chininum Sulfuricum.*

The Salt should not become colored, when moistened with either nitric or sulphuric acid.

Bisulphate of Quinine should be kept protected from the light.

CHININUM FERRO-CITRICUM.

CITRATE OF IRON AND QUININE. EISENCHININCITRAT.

[*Ferri et Quininæ Citras, U. S. Ph.*]

(*Citronensaures Eisen-chinin.*)

Dissolve

Citric Acid, *six parts* 6

in

Water, *five hundred parts* 500

and add

Powdered Iron, *three parts*..... 3

Digest the mixture on a water-bath for 48 hours, stirring frequently ; then filter and evaporate the liquid to the consistence of thin syrup. When cold add

Quinine (freshly precipitated by solution of soda from 1.3 part of sulphate of quinine), *one part*..... 1

and, when wholly dissolved, spread the liquid on glass or porcelain plates, and allow it to dry.

Transparent, shining, dark reddish-brown scales, of a ferruginous and bitterish taste ; slowly soluble in water in all proportions ; sparingly soluble in alcohol.

When 1 Gm. of the Salt is dissolved in 4 C.c. of water, treated with solution of soda and shaken with 10 parts of ether, the latter, when removed and evaporated, should leave, at least, 0.09 of Quinine.

It should be kept protected from the light.

CHININUM HYDROCHLORICUM.

HYDROCHLORATE OF QUININE. CHININHYDROCHLORAT.

[*Quininæ Hydrochloras, U. S. Ph.*]

(*Chininum hydrochloratum ; Chininum muriaticum ; Salzsaures Chinin.*)

White, needle-shaped crystals, of a bitter taste ; yielding, with 3 parts of alcohol, or with 34 parts of water, neutral solutions, exhibiting no fluorescence. When either of these solutions is diluted with about 200 parts of water, and mixed with 50 parts of chlorine water, it turns green on dropping water of ammonia into it. Nitrate of silver affords a white precipitate in a solution of the Salt.

After drying 100 parts of the Salt at the temperature of 100° C., 91 parts should remain. On evaporating 2 Gm. of the Salt, mixed with 1 Gm. of sulphate of sodium and 20 Gm. of water, to dryness, exhausting the residue by boiling it with 12 Gm. of alcohol and evaporating the filtrate, the residuary sulphate of quinine should be tested as directed under *Chininum Sulfuricum.*

A solution of 1 part of Hydrochlorate of Quinine in 100 parts of water should not be rendered turbid by diluted sulphuric acid, and but very slightly so by nitrate of barium. When the Salt is moistened with nitric acid it should not turn red. When it is shaken for five minutes with an amount of chlorine water insufficient for complete solution, no yellow color should appear.

CHININUM SULFURICUM.

SULPHATE OF QUININE. CHININSULFAT.

[*Quininæ Sulphas, U. S. Ph.*]

(*Chininum sulfuricum basicum; Schwefelsaures Chinin.*)

White, flexible, acicular crystals, of a bitter taste; soluble in 6 parts of boiling alcohol, and in 25 parts of boiling water. One part of the Salt requires 800 parts of cold water for solution; the solution exhibiting no fluorescence, and no acid reaction, at least not on litmus paper. One drop of diluted sulphuric acid develops in the solution a blue fluorescence. When to 5 parts of a cold, saturated, aqueous solution of the Salt 1 part of chlorine water is added, and afterward water of ammonia in drops, the solution turns green. The aqueous solution yields a precipitate with nitrate of barium, but none with nitrate of silver. After drying 100 parts of the Salt at the temperature of 100° C., at least 85 parts should remain. When 2 Gm. of Sulphate of Quinine are shaken with 20 C.c. of water at 15° C., 5 C.c. of the mixture filtered, after half an hour, into a test-tube, then water of ammonia gradually added, until the Quinine at first thrown down is redissolved,—the amount of water of ammonia consumed should not exceed 7 C.c.

When the Salt is moistened with either nitric or sulphuric acid, it should not become colored.

One Gm. of the Salt dissolves completely in 7 C.c. of a mixture of 2 volumes chloroform and 1 volume of absolute alcohol, if kept at a temperature of 40 to 50° C. for a short time; the solution remaining perfectly clear after cooling.

CHINIOÏDINUM.

CHINOIDIN. CHINIOÏDIN.

[*Chinoidinum, U. S. Ph.; Quinoidin.*]

(*Chinioïdeum.*)

A brown or brownish-black, resinoid mass, breaking readily with a conchoidal, shining fracture; having a bitter taste; sparingly soluble in water; readily soluble in alcohol, chloroform, and in acidulated water.

One Gm. of Chinoidin should dissolve in a cold mixture of 1 Gm. of acetic acid and 9 Gm. of water, to a clear liquid, leaving but a slight residue undissolved; and 1 Gm. should also form a clear solution with 9 Gm. of diluted alcohol. On ignition, it should not leave more than 0.5 to 0.7 per cent. of ash.

CHLORALUM HYDRATUM.

CHLORAL. CHLORALHYDRAT.

[*Chloral, U. S. Ph.; Hydrate of Chloral.*]

(*Chloral.*)

Dry, colorless, transparent crystals, permanent in the air; fusing at 58° C.; having a pungent odor, and a slightly bitter and acrid taste. Freely soluble in water, alcohol, and ether; more sparingly in the fatty oils and disulphide of carbon; insoluble in cold chloroform. When warmed with solution of soda, Chloral yields a turbid solution, which deposits chloroform and then becomes clear.

A solution in 10 parts of alcohol should scarcely redden blue litmus paper, and, when acidulated with nitric acid, it should not be rendered more than faintly opalescent by nitrate of silver. When heated, Chloral volatilizes, but gives off no combustible vapors.

It should be cautiously preserved.

Largest single dose..... 3.0 Gm.
Largest daily dose..... 6.0 Gm.

CHLOROFORMIUM.

CHLOROFORM. CHLOROFORM.

[*Chloroformum, U. S. Ph.*]

(*Formylum trichloratum; Formylchlorid.*)

A clear, colorless liquid, of a peculiar odor and a sweetish taste. Very slightly soluble in water; freely soluble in alcohol, ether, and the fatty oils; boiling at 60 to 61° C. Specific gravity 1.485 to 1.489.

Chloroform, when mixed and warmed with an alcoholic solution of potassa, and some sulphate of aniline, develops a penetrating and disagreeable odor.

Water shaken with Chloroform should not redden litmus paper, nor cause turbidity, when it is carefully poured on the surface of volumetric solution of nitrate of silver diluted with an equal volume of water, so as to form a stratum on the diluted test-solution. Drops of Chloroform, falling through a stratum of a solution of iodide of potassium, at least 3 centimeters deep, should not become colored.

It should be free from the suffocating odor of phosgene.

On shaking 20 Gm. of Chloroform repeatedly with 15 Gm. of sulphuric acid in a glass-stoppered bottle, 3 centimeters in diameter, and previously rinsed with the sulphuric acid, the acid should not become colored after remaining in contact with the Chloroform for one hour.

It should be cautiously preserved and protected from the light.

CHRYSAROBINUM.

CHRYSAROBIN. CHRYSAROBIN.

A yellow, light, crystalline powder, obtained by purifying the secretion found in the crevices of the wood in the trunk of *Andira Araroba*.

When boiled with 2,000 parts of water, it yields, without being wholly dissolved, a slightly reddish-brown colored filtrate, which is tasteless, does not affect litmus paper, and is not colored by ferric chloride. When shaken with water of ammonia, it assumes, in the course of one day, a beautiful carmine color. When 0.001 Gm. of Chrysarobin is placed upon a drop of fuming nitric acid, and the red solution spread out in a thin layer, the latter is colored violet if brought in contact with water of ammonia.

When spread upon sulphuric acid Chrysarobin yields a reddish-yellow solution. It should dissolve in 150 parts of hot alcohol, leaving but a very slight residue. When heated in an open capsule it fuses, gives off yellow vapors, chars somewhat, and, on ignition, it is finally dissipated without a residue.

CODEÏNUM.

CODEINE. CODEÏN.

[*Codeina, U. S. Ph.*]

White or colorless crystals, which are often distinctly octahedral; yielding, with 80 parts of water, a bitter solution of an alkaline reaction. When boiled with water it melts, before dissolving, into transparent drops, which become crystalline upon cooling.

Codeine dissolves freely in alcohol, ether, or chloroform, but is sparingly soluble in petroleum benzin. The crystals effloresce in warm air; and, when anhydrous, fuse at 155° C. It is readily soluble in diluted acids, but slightly soluble in solution of potassa. It dissolves in the same proportion of water of ammonia as in water. 0.005 Gm. of Codeine yields, with 10 Gm. of sulphuric acid, a colorless solution, which, when gently warmed, assumes a dark-blue color on the addition of two drops of a very dilute solution of ferric chloride.

It should be cautiously preserved.

Largest single dose ..... **0.05 Gm.**
Largest daily dose..... **0.2 Gm.**

COFFEÏNUM.

CAFFEINE. COFFEÏN.

[*Caffeina, U. S. Ph.; Theine.*]
(*Theinum; Thein.*)

White, shining, flexible needles; soluble in 80 parts of water, yielding a neutral, slightly bitter solution; soluble in 2 parts of hot water, forming a soft, crystalline mass upon cooling; also soluble in about 50 parts of alcohol, or in 9 parts of chloroform; sparingly soluble in ether. Anhydrous Caffeine, when carefully heated to above 180° C., sublimes without residue.

A solution of Caffeine in chlorine water, evaporated on a water-bath, leaves a yellowish-red residue, which, when immediately moistened with water of ammonia, assumes a beautiful, purple color. A saturated, cold, aqueous solution is not rendered turbid by chlorine water, or by test-solution of iodine; but tannic acid affords an abundant precipitate, which disappears again on the further addition of tannic acid.

Largest single dose..... **0.2 Gm.**
Largest daily dose..... **0.6 Gm.**

COLLODIUM.

COLLODION. COLLODIUM.

Mix carefully

Crude Nitric Acid, of the specific gravity 1.380, *four hundred parts* 400

with

Crude Sulphuric Acid, of the specific gravity 1.830, *one thousand parts*..... 1000

When the temperature of the mixture has fallen to 20° C., press into the liquid

Purified Cotton, *fifty-five parts*..... 55

and set the whole aside for 24 hours at a temperature of 15 to 20° C.

Then transfer the cotton to a funnel and allow the acid mixture to drain off. Wash the cotton with water until the acids are completely removed, express the water, and dry the cotton at 25° C. Take of this dried

Pyroxylin, *two parts* 2

and shake it with

Ether, *forty-two parts* 42

then add

Alcohol, *six parts* 6

and agitate until the pyroxylin is dissolved. Allow the Collodion to settle for several weeks, and decant the clear portion.

A colorless or slightly yellow, neutral liquid, of the consistence of syrup. When spread out in thin layers, after the evaporation of the alcohol and ether, Collodion should form a colorless, tough cuticle.

COLLODIUM CANTHARIDATUM.

Collodion with Cantharides. Cantharіden-Collodium.

[*Collodium cum Cantharide, U. S. Ph.; Cantharidal Collodion.*]

(*Collodium cantharidale; Collodium vesicans; Blazenziehendes Collodium.*)

Cantharides, in coarse powder, *fifty parts* 50

Ether, *eighty parts* 80

Macerate for three days, shaking frequently; then filter and pour Ether on the Cantharides until the filtrate amounts to

Forty-two parts 42

To this filtrate add

Pyroxylin, *two parts* 2

Alcohol, *six parts* 6

and shake until the pyroxylin is dissolved.

An olive-green, clear, neutral liquid, of the consistence of syrup. When spread out in thin layers, after the evaporation of the alcohol and ether, it should form a green, tough cuticle.

It should be **cautiously** preserved.

COLLODIUM ELASTICUM.

Flexible Collodion. Elastisches Collodium.

[*Collodium Flexile, U. S. Ph.*]

Collodion, *forty-nine parts* 49

Castor Oil, *one part* 1

Mix them.

COLOPHONIUM.

RESIN. GEIGENHARZ.

[*Resina, U. S. Ph.; Colophony.*]

(*Resina Colophonium.*)

The residue left after distilling off the volatile oil from the turpentine of *Coniferæ*, especially of *Pinus Australis* and *Pinus Tæda*.

Yellowish or light brown masses of a specific gravity from 1.068 to 1.070, breaking into large, sharp-edged pieces of a conchoidal fracture. It melts by the heat of a water-bath to a clear and viscid liquid, which, when the temperature is raised, gives off heavy, white, aromatic vapors. It dissolves slowly at 60° C. in an equal weight of alcohol, and also in an equal weight of glacial acetic acid.

Either of these solutions, when cold, very slowly deposits crystals of abietinic acid.

CORTEX CASCARILLÆ.

CASCARILLA. CASCARILLRINDE.

[*Cascarilla, U. S. Ph.; Cascarilla Bark.*]

The bark of *Croton Eluteria*; in hard quills, generally less than 1 decimeter in length and 1 centimeter in diameter, or channelled pieces from 1 to 2 millimeters in thickness, partially covered with a light gray corky layer. The denuded, yellowish-gray or brown portions are longitudinally striped and transversely fissured. The inner surface of the bark is brownish, and uniformly and finely grained. The bark breaks with a short, uneven fracture of an oily lustre, and is finely radiated in the inner portion. Cascarilla has a distinctly aromatic odor, and a strongly aromatic and bitter taste. Woody portions should be removed from the bark before using it.

Copalchi bark, obtained from *Croton niveus*, is in much larger quills or channelled pieces, sometimes a foot long, 2 centimeters in diameter, and often over 4 millimeters in thickness; having a coarsely radiated fracture, and a somewhat sharper taste than Cascarilla. Copalchi bark should not be employed.

CORTEX CHINÆ.

CINCHONA. CHINARINDE.

[*Cinchona, U. S. Ph.; Cinchona Bark.*]

The bark of the trunk and branches of cultivated species of Cinchona, especially of *Cinchona succirubra*, occurring frequently in quills of

about 6 decimeters in length, from 1 to 4 centimeters in diameter, and from 2 to 4 millimeters in thickness, also in semi-cylindrical pieces of corresponding sizes. The bark breaks readily, is covered with a thin, brownish-gray, corky layer and presents coarse, longitudinal wrinkles and short, transverse fissures. The inner surface is reddish-brown and fibrous. When viewed under a lens, the bark is seen to contain the bast-fibres peculiar to the genus Cinchona. When 1 Gm. is heated to redness in a glass tube, a beautiful carmine colored tar is produced.

The bark yields a reddish-brown powder, which should contain, at least, 3.5 per cent. of alkaloids.

The powdered bark is assayed as follows: Shake 20 Gm. of it strongly and repeatedly with a mixture of 10 Gm. of water of ammonia, 20 Gm. of alcohol and 170 Gm. of ether, and, after a day, decant 120 Gm. of the clear liquid. To this liquid add 3 C.c. of volumetric hydrochloric acid, remove the ether by distillation or evaporation, and again add, if necessary, enough hydrochloric acid to render the solution acid. Then filter and mix the cold filtrate with 3.5 C.c. of volumetric solution of potassa. When the alkaloids have subsided, drop more of the solution of potassa into the clear supernatant liquid, until nothing more is thrown down. Finally, collect the whole of the precipitate on a filter, and wash it repeatedly with small portions of water, until drops of the wash-water allowed to come in contact with the surface of a cold, aqueous, neutral, saturated solution of sulphate of quinine no longer produce a turbidity. When the alkaloids have drained, press them gently between bibulous paper, and, having dried them sufficiently in the air to permit their being removed to a watch-glass, dry them completely, first over sulphuric acid, and, finally, by means of a water-bath.

The weight of alkaloids procured by this method should not be less than 0.42 Gm. When a small portion of the same is boiled with 300 parts of water, the filtrate, after cooling, should yield flakes of Quinine. When to 5 parts of this solution, after being cooled and decanted, 1 part of chlorine water is added, and water of ammonia immediately dropped in, the liquid should acquire a beautiful green color.

CORTEX CINNAMOMI.

(Chinese) Cinnamon. Chinesischer Zimmt.

[*Cinnamomum, U. S. Ph.*]

(*Cortex Cinnamomi chinensis; Zimmtkassie; Kanneel.*)

The bark of the branches and younger trunks of species of *Cinnamomum* grown in Southern China.

Quills or semi-cylindrical pieces of about a foot in length, from 0.5 to 3 centimeters, and over, in diameter, and from 1 to 3 millimeters in thickness; internally brown; externally covered with a brownish-gray and only slightly fissured corky layer. Sometimes entirely deprived of this layer, and, on an average, only 1 millimeter in thickness, and these pieces have a light-brown, longitudinally veined, outer surface. Cinnamon should possess its peculiar aroma in a high degree, without an accompanying mucilaginous taste.

CORTEX CONDURANGO.

CONDURANGO. CONDURANGORINDE.

[*Cundurango.*]

The bark obtained from *Gonolobus Cundurango.*

Irregularly curved or channelled pieces, about 1 decimeter long and from 1 to 7 millimeters thick. The outer surface is rugged and longitudinally wrinkled, and of a brownish, or brownish-gray color. The inner surface is light gray, and marked with coarse longitudinal striæ. The transverse section of the bark, beneath the thin, brown, corky layer, exhibits, under the microscope, a uniform whitish, wavy-rayed tissue with large, brown, indurated cells and copious granules of starch. The bark is readily cut, and, when broken, shows isolated fibers projecting from the granular fracture.

It has a bitterish and slightly acrid taste.

CORTEX FRANGULÆ.

ALDER BUCKTHORN. FAULBAUMRINDE.

[*Frangula, U. S. Ph.; Buckthorn.*]

(*Cortex Rhamni Frangulæ.*)

The bark of *Rhamnus Frangula.* In quills, up to 3 decimeters in length and 1.5 millimeter in thickness. Outer surface varying from dull brown to gray, and covered with numerous lenticels; internally deep brown; the longitudinal fracture yellow and fibrous. The bark has a mucilaginous and somewhat sweetish and bitterish taste. When immersed in lime-water, the inner portion assumes a beautiful red color. It yields a brown decoction which is colored deep brown, but not rendered cloudy by ferric chloride.

CORTEX FRUCTUS AURANTII.

BITTER ORANGE PEEL. POMERANZENSCHALE.

[*Aurantii Amari Cortex, U. S. Ph.*]

(*Cortex pomorum Aurantii.*)

The rind of *Citrus vulgaris*, in longitudinal quarters, peeled from the full-grown, yellowish-red fruit. When dry the rind has a brownish, glandular surface, beneath which are numerous oil-cells, extending into the white, inner tissue. Orange Peel is aromatic, and has a very bitter taste. The greater part of the white tissue should be removed and the outer portion, *Flavedo Fructus Aurantii*, alone employed.

CORTEX FRUCTUS CITRI.

LEMON PEEL. CITRONENSCHALE.

[*Limonis Cortex, U. S. Ph.*]

The rind of the full-grown fruit of *Citrus Limonum*, cut in spiral bands and dried. Underneath the ruggedly glandular, brownish-yellow surface are numerous oil-cells, and a thin, white, spongy tissue. It has an aromatic and bitterish taste.

CORTEX GRANATI.

POMEGRANATE. GRANATRINDE.

[*Granatum, U. S. Ph.*]

Obtained from *Punica Granatum*. The bark of the trunk is in quills or sub-cylindrical pieces, generally less than 1 decimeter long; 1 to 3 millimeters thick; often curved. Along the dull gray, outer surface run lighter colored, longitudinal, corky ridges, and it is frequently covered with black lichens (mostly *Arthonia astroidea*, *Arthonia punctiformis*, *Arthopyrenia atomaria*), which are plainly visible under a lens. The interior structure of the bark is yellowish; the inner surface more brownish. The bark of the root, which resembles that of the trunk, is often covered with a more brownish cork, which, in the larger pieces, exhibits alveolar desquamations, is free from lichens, and without regular, longitudinal ridges.

When fragments of Pomegranate Bark are shaken with 100 parts of water, in the course of an hour a yellowish liquid is obtained, from which red flakes are separated upon addition of lime-water. An aqueous infusion of the bark is colored blue by solution of ferric chloride (1 = 1,000).

CORTEX QUERCUS.

OAK BARK. EICHENRINDE.

The younger bark of *Quercus Robur*, especially that which has a more or less glossy surface ["Spiegelrinde"]. In cylinders from 1 to 3 centimeters in diameter and of 1 to 3 millimeters in thickness; having a gray or brown surface, which is smooth and shining in the younger bark, somewhat fissured and uneven in the older; the inner surface is brown and coarsely fibrous. The bark has a very astringent taste. Shaken with 100 parts of water, it yields a brownish liquid, which produces a bluish-black precipitate with solution of ferric chloride (1=100).

CROCUS.

SAFFRON. SAFRON.

The deep brownish-red stigmas of *Crocus sativus*, having a strong odor, and an aromatic and bitter taste. When softened in water, they appear to be 3 centimeters long, tubular, slit open on one side, expanding and notched at the top. The pale yellow styles, sometimes bearing 3 stigmas, should be present only in very small proportion. With 10 parts of water, Saffron should yield a yellowish-red liquid, free from sweet taste, and which, when diluted with 10,000 parts of water, should still exhibit a yellow tint. At a temperature of 100° C. it should lose less than 14 per cent. of moisture, and when afterward incinerated, should leave not more than 8 per cent. of ash.

Saffron should be kept in the dark.

CUBEBÆ.

CUBEB. CUBEBEN.

[*Cubeba, U. S. Ph.*]

(*Baccæ Cubebæ; Fructus Cubebæ.*)

The unripe, globular fruit of *Cubeba officinalis*, attaining a diameter up to 5 millimeters. To the dark, grayish-brown, wrinkled pericarp, of about 0.25 millimeter in diameter, is attached the attenuated stalk, about 1 centimeter long and scarcely 1 millimeter thick. The light colored, brittle endocarp encloses a single, usually shrivelled seed, adhering only at the base. Cubebs have a penetrating, aromatic taste, without pungency, but somewhat bitter. The stalks of the fruit, sometimes 4 centimeters in length, and over 2 millimeters in thickness, should be rejected.

CUPRUM OXYDATUM.

BLACK OXIDE OF COPPER. KUPFEROXYD.

Sulphate of Copper, *ten parts*	10
Carbonate of Sodium, *fifteen parts*	15
Dissolve each in	
Water, *fifty parts*	50

Mix, and heat gently for a few minutes, while stirring, so that the precipitate may collect compactly at the bottom of the vessel; then transfer the precipitate to a filter, wash it with water, and having dried it, expose it to a low red heat.

A black, non-crystalline, heavy powder, readily soluble in diluted nitric acid, without evolution of carbonic acid gas, and without leaving a residue.

A portion of this solution, completely precipitated by hydrosulphuric acid, should yield a colorless filtrate, leaving no residue on evaporation; another portion treated with an excess of water of ammonia should yield a clear, deep blue solution.

If 1 C.c. of test-solution of ferrous sulphate is poured upon 1 Gm. of Black Oxide of Copper, and to this be added, without mixing, 1 C.c. of sulphuric acid, no brown zone should be developed at the place of contact of the two liquids.

It should be **cautiously** preserved.

CUPRUM SULFURICUM.

SULPHATE OF COPPER. KUPFERSULFAT.

[*Cupri Sulphas, U. S. Ph.*]

(*Reiner Kupfervitriol.*)

Blue, translucent crystals, only slightly efflorescent in dry air; soluble in 3.5 parts of cold, and 1 part of boiling water; insoluble in alcohol. The aqueous solution yields, with nitrate of barium, a white precipitate, insoluble in hydrochloric acid; and, with water of ammonia in excess, it forms a clear, deep blue liquid.

When the copper is completely precipitated from an aqueous solution by hydrosulphuric acid, the colorless filtrate should leave no residue on evaporation.

It should be **cautiously** preserved.

Largest single dose..... 1.0 Gm.

CUPRUM SULFURICUM CRUDUM.

CRUDE SULPHATE OF COPPER. ROHES KUPFERSULFAT.

(*Rohes Kupfervitriol.*)

Blue, generally large, translucent crystals or crystalline crusts, which are but slightly efflorescent.

Soluble in 3.5 parts of cold, and in 1 part of boiling water. The solution has an acid reaction, and yields, with an excess of water of ammonia, a deep blue, clear, or very nearly clear, liquid.

It should be **cautiously** preserved.

DECOCTA.

DECOCTIONS. ABKOCHUNGEN.

Decoctions, for which the amount of the respective Substance is not specified, are prepared so that 10 parts of strained product are obtained from 1 part of Substance.

From this rule are excepted, Decoctions of Substances for which a limit of dose is given, and of such substances as are strongly mucilaginous. In the case of the former, the physician is to prescribe the amount; in the case of the latter, the proper quantity is left to the discretion of the pharmacist.

The Substance from which the Decoction shall be prepared, is put in a suitable vessel, and cold water poured upon it; then exposed, for half an hour, with occasional agitation to the steam from boiling water, on a water-bath, and the liquid, while still warm, strained with expression.

DECOCTUM SARSAPARILLÆ COMPOSITUM FORTIUS.

STRONGER COMPOUND DECOCTION OF SARSAPARILLA. STÄRKERE SARSAPARILLABKOCHUNG.

(*Stärkeres Zittmann'shes Decoct.*)

Sarsaparilla, cut, *one hundred parts* 100
Water, *twenty-six hundred parts* 2600
Digest for 24 hours, and having added
Sugar, *five parts* 5
and
Alum, *five parts* 5
expose them in a covered vessel, with occasional stirring, for 3

hours, to the heat of boiling water, on a water-bath; then add to the mixture

Anise, bruised, *five parts*	5
Fennel, bruised, *five parts*	5
Senna, cut, *twenty-five parts*	25
Liquorice Root, cut, *ten parts*	10

Digest for a quarter of an hour and strain the liquid, with expression.

Allow the Decoction to settle; then pour off the liquid, and, by the addition of water, bring it to 2,500 *parts*.

DECOCTUM SARSAPARILLÆ COMPOSITUM MITIUS.

MILDER COMPOUND DECOCTION OF SARSAPARILLA. — SCHWÄCHERE SARSAPARILL-ABKOCHUNG.

(*Schwächeres Zittmann'sches Decoct.*)

Sarsaparilla, cut, *fifty parts*	50
Water, *twenty-four hundred parts*	2400

Digest for 24 hours and expose in a covered vessel, with occasional stirring, for 3 hours, to the heat of boiling water, on a water-bath.

Then add to the decoction

Lemon Peel, cut, *five parts*	5
Cinnamon, bruised, *five parts*	5
Cardamom, bruised, *five parts*	5
Liquorice Root, cut, *five parts*	5

Digest for a quarter of an hour and strain the liquid, with expression.

Allow the Decoction to settle; then pour off the liquid, and, by the addition of water, bring it to 2,500 *parts*.

ELÆOSACCHARA.

OLEOSACCHARATES. — OELZUCKER.

Any Volatile Oil, *one drop*	1
Powdered Sugar, *two grammes*	2

Mix them.

Oleosaccharates should be prepared only when prescribed.

ELECTUARIUM E SENNA.

CONFECTION OF SENNA. SENNALATWERGE.

[*Confectio Sennæ, U. S. Ph.*]

Senna, powdered, *ten parts*	10
Syrup, *forty parts*	40
Purified Tamarind Pulp, *fifty parts*	50

Mix, and heat the mixture gently on the steam-bath.

The Confection should have a greenish-brown color.

ELIXIR AMARUM.

BITTER ELIXIR. BITTERES ELIXIR.

Extract of Wormwood, *ten parts*	10
Oleosaccharate of Peppermint, *five parts*	5

Triturate them with

Water, *twenty-five parts*	25

and add

Aromatic Tincture, *five parts*	5
Bitter Tincture, *five parts*	5

Bitter Elixir should be somewhat cloudy and of a dark-brown color.

ELIXIR AURANTIORUM COMPOSITUM.

COMPOUND ELIXIR OF ORANGE. POMERANZENELIXIR.

(*Elixir viscerale Hoffmanni ; Hoffmann'sches Magenelixir.*)

Orange Peel, cut, *fifty parts*	50
Cinnamon, bruised, *ten parts*	10
Carbonate of Potassium, *two and five-tenth parts*	2.5

Pour upon them

Sherry Wine, *two hundred and fifty parts*	250

Macerate for 8 days and express. By the addition of Sherry Wine bring the liquid to 230 parts, and dissolve in the same

Extract of Gentian, *five parts*	5
Extract of Wormwood, *five parts*	5
Extract of Buckbean, *five parts*	5
Extract of Cascarilla, *five parts*	5

Allow the mixture to settle ; then filter.

It should be a clear, brown, aromatic liquid of a very bitter taste.

ELIXIR E SUCCO LIQUIRITIÆ.

PECTORAL ELIXIR. BRUSTELIXIR.

(*Elixir e Succo Glycyrrhizæ; Elixir pectorale.*)

Dissolve

Purified Extract of Liquorice, *ten parts* 10

in

Fennel Water, *thirty parts* 30

and add

Anisated Spirit of Ammonia, *ten parts* 10

Allow the mixture to settle for two days; then pour off the liquid from the sediment.

A brown, cloudy liquid, which becomes clear on the addition of 10 parts of water.

EMPLASTRUM ADHÆSIVUM.

RESIN PLASTER. HEFTPFLASTER.

[*Emplastrum Resinæ, U. S. Ph.; Adhesive Plaster.*]

Melt

Lead Plaster, *five hundred parts* 500

and continue the heat until all moisture is expelled. To the mass, which has acquired a grayish color, and should be brought to a temperature between 60 and 80° C., add

Yellow Wax, *fifty parts* 50

and a previously melted mixture of

Dammar Resin, *fifty parts* 50

Resin, *fifty parts* 50

Turpentine, *five parts* 5

Resin Plaster should be yellowish, and very adhesive.

EMPLASTRUM CANTHARIDUM ORDINARIUM.

CANTHARIDES PLASTER. SPANISCHFLIEGENPFLASTER.

[*Ceratum Cantharidis, U. S. Ph.*]

(*Emplastrum vescicatorium ordinarium; Blasenpflaster.*)

Cantharides, powdered, *fifty parts* 50

Olive Oil, *twenty-five parts* 25

Digest for several hours; then add

Yellow Wax, *one hundred parts* 100

Turpentine, *twenty-five parts* 25

Melt them together, by means of a steam-bath, and mix thoroughly. It should be a soft Plaster.

EMPLASTRUM CANTHARIDUM PERPETUUM.

PERPETUAL CANTHARIDES PLASTER. ZUGPFLASTER.

(*Immerwährendes Spanischfliegenpflaster.*)

Resin, *seventy parts*	70
Yellow Wax, *fifty parts*	50
Turpentine, *thirty-five parts*	35
Suet, *twenty parts*	20

Melt them together with a gentle heat, and mix with

Cantharides, in fine powder, *twenty parts*	20
Euphorbium, in fine powder, *five parts*	5

It should be a greenish-black Plaster.

EMPLASTRUM CERUSSÆ.

WHITE LEAD PLASTER. BLEIWEISSPFLASTER.

(*Emplastrum album coctum.*)

Lead Plaster, *sixty parts*	60
Common Olive Oil, *ten parts*	10

Melt them together and mix with

Carbonate of Lead, in fine powder, *thirty-five parts*	35

Boil the mixture, stirring frequently, and occasionally adding water, until it is reduced to the consistence of plaster.

It should be a white, hard Plaster.

EMPLASTRUM FUSCUM CAMPHORATUM.

UNIVERSAL PLASTER. MUTTERPFLASTER.

(*Emplastrum fuscum, Ph. Bor.; Emplastrum matris; Emplastrum Minii adustum; Emplastrum nigrum; Emplastrum Noricum; Nürnberger Pflaster; Universalpflaster.*)

Oxide of Lead, in fine powder, *thirty parts*	30
Common Olive Oil, *sixty parts*	60

Boil, while stirring constantly, until the mass has acquired a blackish-brown color; then add

Yellow Wax, *fifteen parts* 15

and

Camphor, *one part* 1

previously triturated with a little olive-oil.

The Plaster should be tenacious, of a blackish-brown color, and have the odor of camphor.

EMPLASTRUM HYDRARGYRI.

MERCURIAL PLASTER. QUECKSILBERPFLASTER.

(*Emplastrum mercuriale.*)

Mercury, *one hundred parts* 100

Turpentine, *fifty parts* 50

With the addition of a little Oil of Turpentine rub them very intimately together; then mix uniformly with

Lead Plaster, *three hundred parts* 300

Yellow Wax, *fifty parts* 50

previously melted together, and partially cooled.

Lead Plaster should have a gray color; and globules of mercury should not be visible in it to the naked eye.

EMPLASTRUM LITHARGYRI.

LEAD PLASTER. BLEIPFLASTER.

[*Emplastrum Plumbi, U. S. Ph.; Diachylon Plaster.*]

(*Emplastrum Plumbi simplex; Emplastrum Lithargyri simplex.*)

Boil together equal parts of

Common Olive-Oil,

Lard,

and

Oxide of Lead, in fine powder,

over a moderate fire, with the occasional addition of water, and constant stirring, until the plaster is formed and has acquired its proper consistence.

It should be a white, tenacious Plaster, free from greasiness and undissolved oxide of lead.

EMPLASTRUM LITHARGYRI COMPOSITUM.

COMPOUND LEAD PLASTER. GUMMIPFLASTER.

[*Galbanum Plaster; Compound Diachylon Plaster.*]

(*Emplastrum diachylon compositum; Emplastrum Plumbi compositum; Zugpflaster*, First ed. Germ. Phar.)

Lead Plaster, *one hundred and twenty parts* 120
Yellow Wax, *fifteen parts* 15

Melt them with a gentle heat, and to the partially cooled mass add

Ammoniac, *ten parts* 10
Galbanum, *ten parts* 10
Turpentine, *ten parts* 10

which had been previously melted together on a steam-bath, with the addition of a little water, and then strained.

It should be a yellowish, tenacious Plaster of a uniform consistence, turning gradually darker by age.

EMPLASTRUM SAPONATUM.

SOAP PLASTER. SEIFENPFLASTER.

[*Emplastrum Saponis, U. S. Ph.*]

Lead Plaster, *seventy parts* 70
Yellow Wax, *ten parts* 10

Melt them with a gentle heat. To the partially cooled mass add, while stirring,

Medicinal Soap, powdered, *five parts* 5

and

Camphor, rubbed with a little olive-oil, *one part* 1

Soap Plaster should be yellowish-white, and not lubricous.

EMULSIONES.

EMULSIONS. EMULSIONEN.

Emulsions of Seeds are prepared, when no other proportions are prescribed, by using

Seeds, *one part* 1

and

Water sufficient to procure of strained Emulsion, *ten parts* 10

Oil-Emulsions are prepared with

Expressed Oil of Almond, *two parts* 2
Acacia, powdered, *one part* 1
Water, *seventeen parts* 17

EUPHORBIUM.

(*Euphorbiumharz.*)

EUPHORBIUM. EUPHORBIUM.

A gum-resin obtained from *Euphorbia resinifera.*

It is very friable and has a dull yellow color. Within the pieces of the gum-resin are found the remains of the double-spined leaf-cushion,[1] the forked flower pedicels, and the three-carpelled fruit (cocci) of the plant —the pieces presenting the outline of these organs.

Euphorbium has a persistently acrid and burning taste.

It should be **cautiously** preserved.

EXTRACTA.

EXTRACTS. EXTRACTE.

The substances intended for the preparation of Extracts should be finely and uniformly cut or bruised. Maceration should be conducted at a temperature between 15 and 20° C.; digestion between 35 and 40° C.; with frequent stirring in both cases.

The aqueous liquids are immediately evaporated to one-third of their volume ; then set aside for a few days, in a cool place, and strained.

Alcoholic and ethereal liquids are decanted and then filtered.

All the liquids are evaporated, while being stirred, to the consistence of Extract ; in the case of alcoholic and aqueous Extracts, the temperature should not exceed 100° C., and in the case of ethereal Extracts, it should not exceed 50° C.

Extracts are prepared of three degrees of consistence :

1. **Thin Extracts**—of the consistence of fresh honey.

2. **Thick Extracts**—which, when cold, cannot be poured from the vessel.

3. **Dry Extracts**—which may be reduced to powder.

The latter are prepared by evaporating the Extracts, in a porcelain vessel, until they yield a tough mass, friable when cold. The mass is removed from the vessel with a spatula, while still warm ; then drawn into thin ribbons, and dried with a gentle heat.

A solution of an Extract (1 = 4), acidulated with a few drops of hydrochloric acid, should not impart a reddish coating to a polished piece of iron within half an hour.

[1] Forked spines springing from a small protuberance; in this case seated on the angle of the fluted, pyramidal, and cactus-like plant, yielding the gum.—*Translator.*

Dry Extracts of narcotic substances are prepared by mixing

Thick Extracts, *four parts* 4
Liquorice Root, powdered, *three parts* 3

in a warm porcelain capsule; then drying the mixture at a temperature between 40 and 50° C., until the mass ceases to lose weight.

The mass, while still warm, is triturated and mixed with enough powdered Liquorice Root, to yield a product of twice the weight of the Extract employed.

Solutions of narcotic extracts may be kept ready prepared, according to the following formula:

Extract, *ten parts* 10
Water, *six parts* 6
Alcohol, *one part* 1
Glycerin, *three parts* 3

EXTRACTUM ABSINTHII.

EXTRACT OF WORMWOOD. WERMUTEXTRACT.

Macerate for 24 hours

Wormwood, *twenty parts* 20

in a mixture of

Alcohol, *forty parts* 40

and

Water, *sixty parts* 60

Having expressed the liquid, macerate the residue for 24 hours in a mixture of

Alcohol, *twenty parts* 20

and

Water, *thirty parts* 30

Mix the liquids and evaporate to a *thick* extract.

Extract of Wormwood should be greenish-brown, yielding a turbid solution with water.

EXTRACTUM ACONITI.

EXTRACT OF ACONITE. ACONITEXTRACT.

(*Eisenhutextract.*)

Macerate for six days

Aconite Root, *twenty parts* 20

in a mixture of

Alcohol, *forty parts* 40
and
Water, *thirty parts* 30
Having expressed the liquid, macerate the residue, for three days, in a mixture of
Alcohol, *twenty parts* 20
and
Water, *fifteen parts* 15

Mix the liquids and evaporate to a *thick* extract.

Extract of Aconite should be yellowish-brown, yielding a turbid solution with water.

It should be **cautiously** preserved.

Largest single dose ..... **0.02 Gm.**
Largest daily dose ..... **0.1 Gm.**

EXTRACTUM ALOËS.

EXTRACT OF ALOES. ALOËEXTRACT.

Dissolve
Aloes, *one part* 1
in
Boiling Water, *five parts* 5

After two days decant the cold solution from the undissolved resin; then strain and evaporate the liquid to a *dry* extract.

Extract of Aloes should be yellowish-brown, yielding a turbid solution with water.

EXTRACTUM BELLADONNÆ.

EXTRACT OF BELLADONNA. BELLADONNAEXTRACT.

(*Tollkirschenextract.*)

Sprinkle the fresh flowering plant of
Belladonna, *twenty parts* 20
with
Water, *one part* 1
Bruise it in a stone mortar, and express. Treat the residue in the same manner with
Water, *three parts* 3
Mix the liquids and heat to 80° C.; then strain; evaporate to 2 *parts* and add
Alcohol, *two parts* 2

Agitate the mixture occasionally, and strain after 24 hours. Mix the residue remaining on the strainer, in a closed vessel, with

Diluted Alcohol, *one part* 1

Warm gently, shaking repeatedly, and set it aside to settle. Decant the clear liquid, add it to that previously obtained, and having filtered the mixture, evaporate it to a *thick* extract.

Extract of Belladonna should be dark-brown, yielding a nearly clear solution with water.

It should be **cautiously** preserved.

Largest single dose ..... **0.05 Gm.**
Largest daily dose ..... **0.2 Gm.**

EXTRACTUM CALAMI.

EXTRACT OF CALAMUS. CALMUSEXTRACT.

Macerate for 24 hours

Calamus, *twenty parts* 20

in a mixture of

Alcohol, *forty parts* 40

and

Water, *sixty parts* 60

Express, and macerate the residue again, for 24 hours, in a mixture of

Alcohol, *twenty parts* 20

and

Water, *thirty parts* 30

Mix the expressed liquids, and evaporate to a *thick* extract.

Extract of Calamus should be reddish-brown, yielding a turbid solution with water.

EXTRACTUM CANNABIS INDICÆ.

EXTRACT OF INDIAN HEMP. INDISCH-HANFEXTRACT.

Macerate for 6 days

Indian Hemp, *one part* 1

in

Alcohol, *five parts* 5

Express, and macerate the residue again, for 3 days, in

Alcohol, *five parts* 5

Mix the expressed liquids, and evaporate to a *thick* extract.

Extract of Indian Hemp should be greenish-black, and insoluble in water.

It should be cautiously preserved.

Largest single dose ..... **0.1 Gm.**
Largest daily dose..... **0.4 Gm.**

EXTRACTUM CARDUI BENEDICTI.

Extract of Blessed Thistle. Cardobenedictenextract.

Pour upon
Blessed Thistle, *one part* 1
Boiling Water, *five parts*..... 5
and digest for 6 hours. Express the liquid, and pour upon the residue again
Boiling Water, *five parts* 5
and digest for 3 hours.

Mix the expressed liquids and evaporate to a *thick* extract.

Extract of Blessed Thistle should be brown, yielding a turbid solution with water.

EXTRACTUM CASCARILLÆ.

Extract of Cascarilla. Cascarillextract.

Pour upon
Cascarilla, *one part*..... 1
Boiling Water, *five parts*..... 5
and set the mixture aside for 24 hours; then express, and pour upon the residue again
Boiling Water, *five parts*..... 5
and set aside for 24 hours.

Decant the expressed liquids, add a small quantity of diluted alcohol, and evaporate to a *thick* extract.

Extract of Cascarilla should be dark brown, yielding a turbid solution with water.

EXTRACTUM CHINÆ AQUOSUM.

Aqueous Extract of Cinchona. Wässigeres Chinaextract.

Cinchona, *one part*..... 1
Water, *ten parts*..... 10

Macerate for 48 hours, express, and macerate the residue again with

Water, *ten parts*..... 10

for 48 hours.

Evaporate the expressed liquids to 2 *parts*, filter after cooling, and prepare a *thin* extract.

The Extract should be reddish-brown, yielding a turbid solution with water.

EXTRACTUM CHINÆ SPIRITUOSUM.

Alcoholic Extract of Cinchona. Weingeistiges Chinaextract.

[*Extractum Cinchonæ, U. S. Ph.*]

Cinchona, *one part*..... 1

Diluted Alcohol, *five parts*..... 5

Macerate for 6 days, express, and macerate the residue again in

Diluted Alcohol, *five parts*..... 5

for 3 days.

Mix the expressed liquids, and evaporate to a *dry* extract.

The Extract should be reddish-brown, yielding a turbid solution with water.

EXTRACTUM COLOCYNTHIDIS.

Extract of Colocynth. Coloquinthenextract.

Colocynth, *two parts*..... 2

Diluted Alcohol, *fifteen parts*..... 15

Macerate for 6 days; express, and macerate the residue again in a mixture of

Diluted Alcohol, *five parts*..... 5

and

Water, *five parts*..... 5

for 3 days.

Evaporate the expressed liquids to a *dry* extract.

Extract of Colocynth should be brown, yielding a turbid solution with water.

It should be cautiously preserved.

Largest single dose..... **0.05 Gm.**

Largest daily dose..... **0.2 Gm.**

EXTRACTUM CUBEBARUM.

EXTRACT OF CUBEB. CUBEBENEXTRACT.

[*Oleoresina Cubebæ, U. S. Ph.; Oleoresin of Cubeb.*]

Macerate for 3 days

Cubeb, *ten parts* 10

in a mixture of

Ether, *fifteen parts* 15

and

Alcohol, *fifteen parts* 15

Express, and macerate the residue again in a mixture of

Ether, *ten parts* 10

and

Alcohol, *ten parts* 10

for 3 days.

Evaporate the expressed liquids to a *thin* extract.

The Extract should be brown, and insoluble in water.

It should be shaken before being dispensed.

EXTRACTUM DIGITALIS.

EXTRACT OF DIGITALIS. FINGERHUTEXTRACT.

Sprinkle the fresh flowering plant of

Digitalis, *ten parts* 10

with

Water, *one part* 1

Bruise it in a stone mortar and express.

Treat the residue in the same manner with

Water, *three parts* 3

Mix the liquids, and heat to 80° C.; then strain, evaporate to 2 *parts*, and add

Alcohol, *two parts* 2

Agitate the mixture occasionally and strain after 24 hours. Mix the residue remaining on the strainer, in a closed vessel, with

Diluted Alcohol, *one part* 1

Warm gently, shaking repeatedly, and allow it to settle. Decant the clear liquid, add it to that previously obtained, and, having filtered the mixture, evaporate it to a *thick* extract.

Extract of Digitalis should be brown, yielding a turbid solution with water.

Largest single dose ..... **0.2 Gm.**
Largest daily dose ..... **1.0 Gm.**

EXTRACTUM FERRI POMATUM.

FERRATED EXTRACT OF APPLES. EISENEXTRACT.

(*Aepfelsaures Eisenextract.*)

Sour Apples, *fifty parts* 50

Convert them into a pulp and express.

To the expressed liquid add

Powdered Iron, *one part* 1

and heat the mixture, on a water-bath, until the evolution of gas ceases.

Dilute the liquid with water to make 50 parts, and set it aside for several days ; then filter and evaporate to a *thick* extract.

The Extract should be greenish-black, yielding a clear solution with water.

EXTRACTUM FILICIS.

EXTRACT OF ASPIDIUM. FARNEXTRACT.

[*Oleoresina Aspidii, U. S. Ph.; Oleoresin of Male Fern ; Extract of Male Fern.*]

(*Wurmfarnextract.*)

Aspidium, *five parts* 5

Ether, *fifteen parts* 15

Macerate for 3 days, and decant the liquid ; then macerate the residue again in

Ether, *ten parts* 10

for 3 days, and express.

Evaporate the mixed liquids, until all the ether is evaporated and a *thin* extract results.

When shaken and diluted with glycerin, the Extract should exhibit no starch granules under the microscope.

The Extract should be greenish, and insoluble in water.

EXTRACTUM GENTIANÆ.

EXTRACT OF GENTIAN. ENZIANEXTRACT.

Gentian, *one part* 1

Water, *five parts* 5

Macerate for 48 hours ; express and macerate the residue again in

Water, *five parts* 5

for 12 hours, and express.

Mix the liquids, bring the mixture to the boiling point; then decant and evaporate, on a water-bath, to 2 parts. Dissolve this residue in cold water, filter, and evaporate it to a *thick* extract.

Extract of Gentian should be brown, yielding a clear solution with water.

EXTRACTUM GRAMINIS.

Extract of Triticum. Queckenextract.

[*Extract of Couch-grass.*]

Triticum, *two parts* 2
Boiling Water, *ten parts* 10
Digest for 6 hours.

Strain the liquid and boil it down to 3 parts; then filter, and evaporate it to a *thick* extract.

Extract of Couch-grass should be reddish-brown, yielding a clear solution with water.

EXTRACTUM HELENII.

Extract of Inula. Alantextract.

[*Extract of Elecampane.*]

(*Alantwurzelextract.*)

Macerate for 24 hours
Inula, *twenty parts* 20
in a mixture of
Alcohol, *forty parts* 40
and
Water, *sixty parts* 60
Express, and macerate the residue again in a mixture of
Alcohol, *twenty parts* 20
and
Water, *thirty parts* 30
for 24 hours.

Evaporate the expressed liquids to a *thick* extract.

Extract of Inula should be brown and yield a turbid solution with water.

EXTRACTUM HYOSCYAMI.

EXTRACT OF HYOSCYAMUS. BILSENKRAUTEXTRACT.

Sprinkle the fresh flowering plant of

Hyoscyamus, *twenty parts* 20

with

Water, *one part* 1

Bruise it in a stone mortar, and express. Treat the residue in the same manner with

Water, *three parts* 3

Mix the liquids, and heat the mixture to 80° C.; then strain; evaporate to 2 *parts* and add

Alcohol, *two parts* 2

Agitate the mixture occasionally, and strain after 24 hours. Mix the residue remaining on the strainer, in a closed vessel with

Diluted Alcohol, *one part* 1

Warm gently, while shaking repeatedly, and set it aside to settle. Decant the clear liquid, add it to that previously obtained; and, having filtered the mixture, evaporate it to a *thick* extract.

Extract of Hyoscyamus should be greenish-brown, yielding a turbid solution with water.

It should be **cautiously** preserved.

Largest single dose ..... **0.2 Gm.**
Largest daily dose ..... **1.0 Gm.**

EXTRACTUM OPII.

EXTRACT OF OPIUM. OPIUMEXTRACT.

Opium, powdered, *two parts* 2

Water, *ten parts* 10

Macerate for 24 hours; express, and treat the residue in the same manner with

Water, *five parts* 5

Mix, filter the expressed liquids, and evaporate to a *dry* extract.

Extract of Opium should be reddish-brown, yielding a turbid solution with water.

To 30 Gm. of a cold filtered solution, prepared with 3 Gm. of the Extract and 42 Gm. of water, add 10 Gm. of alcohol, 10 Gm. of ether and 1 Gm. of water of ammonia. Having thoroughly agitated the vessel containing the mixture, close it, set it aside at a temperature of 10

to 15° C., shaking frequently, for 12 hours; then transfer the contents to a small, tared filter, previously dried at 100° C., wash the crystals remaining on the filter twice with a mixture of 2 Gm. of diluted alcohol, 2 Gm. of water and 2 Gm. of ether, and finally dry at 100° C. The weight of the crystals should amount to *not less than* 0.34 Gm.

Extract of Opium should be **cautiously** preserved.

Largest single dose..... 0.15 Gm.
Largest daily dose..... 0.5 Gm.

EXTRACTUM QUASSIÆ.

EXTRACT OF QUASSIA. QUASSIAEXTRACT.

Pour upon
Quassia, *one part*..... 1
Boiling Water, *five parts*..... 5
Digest for 6 hours, and express.
Pour upon the residue again,
Boiling Water, *five parts*..... 5
Set aside for 3 hours, and express.

Evaporate the mixed liquids to a *dry* extract.

Extract of Quassia should be brown, yielding a turbid solution with water.

EXTRACTUM RHEI.

EXTRACT OF RHUBARB. RHABARBEREXTRACT.

Macerate for 24 hours
Rhubarb, *twenty parts*..... 20
in a mixture of
Alcohol, *forty parts*..... 40
and
Water, *sixty parts*..... 60
Express, and treat the residue in the same manner with a mixture of
Alcohol, *twenty parts*..... 20
and
Water, *thirty parts*..... 30

Mix the liquids, and evaporate to a *dry* extract.

Extract of Rhubarb should be yellowish-brown, yielding a turbid solution with water.

EXTRACTUM RHEI COMPOSITUM.

COMPOUND EXTRACT OF RHUBARB. ZUSAMMENGESETZTES RHABARBERXTRACT.

Extract of Rhubarb, *thirty parts* 30
Extract of Aloes, *ten parts* 10
Resin of Jalap, *five parts* 5
Medicinal Soap, *twenty parts* 20

Rub them together, and, having moistened the mixture with diluted alcohol, evaporate it to a *dry* extract, by means of a steam-bath.

The Extract should be dark-brown, yielding a turbid solution with water.

EXTRACTUM SABINÆ.

EXTRACT OF SAVINE. SABINAEXTRACT.

(*Sadebaumextract.*)

Macerate for 24 hours
Savine, *twenty parts* 20
in a mixture of
Alcohol, *forty parts* 40
and
Water, *sixty parts* 60
Express, and treat the residue in the same manner with a mixture of
Alcohol, *twenty parts* 20
and
Water, *thirty parts* 30

Mix the liquids and evaporate to a *thick* extract.

Extract of Savine should be greenish-brown, and nearly insoluble in water.

It should be **cautiously** preserved.

EXTRACTUM SCILLÆ.

EXTRACT OF SQUILL. MEERZWIEBELEXTRACT.

Squill, *five parts* 5
Diluted Alcohol, *twenty parts* 20

Macerate for 6 days, and express. Set the liquid aside for some days; then filter and evaporate to a *thick* extract.

The Extract should be yellowish-brown, yielding a nearly clear solution with water.

It should be **cautiously** preserved.

Largest single dose ..... **0.2 Gm.**
Largest daily dose ..... **1.0 Gm.**

EXTRACTUM SECALIS CORNUTI.

EXTRACT OF ERGOT. MUTTERKORNEXTRACT.

(*Ergotinum ; Extractum hæmostaticum.*)

Ergot, *ten parts* 10
Water, *twenty parts* 20

Macerate for 6 hours ; then express, and treat the residue again in the same manner. Mix the liquids, strain, and evaporate the mixture to *five parts*. To this extract add

Diluted Alcohol, *five parts* 5

and set it aside for 3 days, agitating frequently ; then filter and evaporate to a *thick* extract.

Triturate the Extract with an equal weight of alcohol, set the mixture aside for a short time ; then pour off the supernatant liquid. Treat the residue again in the same manner with alcohol and evaporate [the remaining residue] to a *thick* extract.

Extract of Ergot should be reddish-brown, yielding a clear solution with water.

EXTRACTUM STRYCHNI.

EXTRACT OF NUX VOMICA. STRYCHNOSSAMENEXTRACT.

[*Extractum Nucis Vomicæ, U. S. Ph.*]

(*Weingeistiges Krähenaugenextract.*)

Nux Vomica, *ten parts* 10
Diluted Alcohol, *twenty parts* 20

Digest at a temperature, not exceeding 40° C., shaking the mixture frequently, and express. Treat the residue in the same manner with

Diluted Alcohol, *fifteen parts* 15

Mix the expressed liquids, set the mixture aside for several days, and evaporate to a *dry* extract.

The Extract should be brown, yielding a turbid solution with water.

It should be **cautiously** preserved.

Largest single dose ..... **0.05 Gm.**
Largest daily dose ..... **0.15 Gm.**

EXTRACTUM TARAXACI.

EXTRACT OF TARAXACUM. LÖWENZAHNEXTRACT.

Macerate

Taraxacum, collected in the spring and dried, *one part* 1

in

Water, *five parts* 5

for 48 hours and express.

Again macerate the residue for 12 hours in

Water, *five parts* 5

and express.

Mix the liquids, heat the mixture to the boiling point; decant and evaporate it, on a water-bath, to 2 parts. Dissolve this residue in cold water, filter and evaporate to a *thick* extract.

Extract of Taraxacum should be brown, yielding a clear solution with water.

EXTRACTUM TRIFOLII FIBRINI.

EXTRACT OF BUCKBEAN. BITTERKLEEEXTRACT.

(*Fieberkleeextract.*)

Pour upon

Buckbean, *one part* 1

Boiling Water, *five parts* 5

Digest for 6 hours and express. Treat the residue in the same manner, for 3 hours, and express again.

Mix the liquids; decant and evaporate to a *thick* extract.

Extract of Buckbean should be dark-brown, yielding a clear solution with water.

FERRUM CARBONICUM SACCHARATUM.

SACCHARATED CARBONATE OF IRON. ZUCKERHALTIGES FERROCARBONAT.

[*Ferri Carbonas Saccharatus, U. S. Ph.*]

(*Zuckerhaltiges kohlensaures Eisen.*)

Dissolve

Sulphate of Iron, *fifty parts* 50

in

Boiling Water, *two hundred parts* 200

Then filter the solution into a capacious flask, containing a clear solution of

Bicarbonate of Sodium, *thirty-five parts* 35

dissolved in

Warm Water, *five hundred parts* 500

Having thoroughly mixed the contents of the flask, fill it with hot water ; and, closing the flask loosely, set it aside.

Draw off the supernatant liquid from the precipitate, by means of a siphon ; then fill the flask again with hot water.

After the mixture has settled, draw off the liquid again, and repeat the operation until the decanted liquid scarcely produces a turbidity with nitrate of barium.

Now remove the water as much as possible from the precipitate, and transfer the latter to a porcelain capsule containing

Powdered Sugar of Milk, *ten parts* 10

and

Powdered Sugar, *thirty parts* 30

Evaporate the mixture, by means of a steam-bath, to dryness ; and, having reduced the product to powder, add sufficient, well-dried, powdered sugar, to make the product weigh

One hundred parts 100

A greenish-gray powder, having a sweet, slightly ferruginous taste, and containing 10 per cent. of iron. It dissolves in hydrochloric acid with copious evolution of carbonic acid gas, yielding a greenish-yellow solution, which, when diluted with water affords a blue precipitate, both with ferrocyanide and with ferricyanide of potassium.

When dissolved in water (1=50), with the aid of the least possible amount of hydrochloric acid, the solution should not immediately exhibit a turbidity, when treated with nitrate of barium.

Ignite 1 Gm. of Saccharated Carbonate of Iron, with access of air, until the sugar is decomposed ; then exhaust the residue entirely with hot hydrochloric acid, and filter. Heat the filtrate, after the addition of a few crystals of chlorate of potassium, until the iron is wholly oxidized, and the chlorine is expelled. When the liquid is cold, add 2 Gm. of iodide of potassium, in a glass-stoppered bottle, and set it aside in a moderately warm place for an hour. If now treated with volumetric solution of starch it should require, at least, 17 C.c. of volumetric solution of hyposulphite of sodium to combine with the liberated iodine.

A preparation, having a brown color, and effervescing but slightly with acids, should be rejected.

FERRUM JODATUM.

IODIDE OF IRON. EISENJODÜR.

(*Jodeisen; Ferrojodid.*)

Mix

Powdered Iron, *thirty parts* 30

with

Water, *one hundred parts* 100

and gradually add

Iodine, *eighty-two parts* 82

stirring constantly. Filter as soon as the reddish-brown solution has acquired a greenish color, and add a little water through the filter, to rinse it.

Iodide of Iron should be prepared by this method when required for use, and in this form added to any liquid mixture prescribed by the physician. When intended for a pill-mass, the solution is evaporated in an iron capsule as rapidly as possible.

The 82 parts of Iodine employed correspond to 100 parts of Iodide of Iron.

FERRUM LACTICUM.

LACTATE OF IRON. FERROLACTAT.

[*Ferri Lactas, U. S. Ph.*]

(*Milchsaures Eisenoxydul.*)

A greenish-white, crystalline powder, or crusts of small, needle-shaped crystals, having a peculiar, but no very decided odor; dissolving slowly in 38.2 parts of water, yielding a greenish-yellow liquid of a slightly acid reaction. The solution, when treated with ferricyanide of potassium, immediately acquires a dark-blue color; ferrocyanide of potassium renders it only faintly light-blue. Lactate of Iron is soluble in 12 parts of boiling water; almost insoluble in alcohol. When heated it chars, diffuses an empyreumatic, caramel-like odor, and is finally converted into red oxide of iron.

The cold saturated, aqueous solution of the Salt should not assume more than an opalescence on the addition of acetate of lead; nor when treated with hydrosulphuric acid, after having previously been acidulated with hydrochloric acid. The solution should behave in the same manner with nitrate of barium, when first acidulated with nitric acid.

If the solution, mixed with a few drops of diluted sulphuric acid, is boiled for 10 minutes; then supersaturated with solution of soda and

gently warmed with a few drops of a solution of 1 part of sulphate of copper and 3 parts of tartaric acid in 20 parts of water—sufficient solution of soda being added to form a clear blue liquid—the mixture should afford no red precipitate.

If the Salt is triturated with sulphuric acid, no evolution of gas should take place, and, after standing for some time, no brown color should be noticeable.

When 1 Gm. of the Salt is moistened with nitric acid and ignited, it should leave about 0.27 Gm. ferric oxide, which should yield nothing appreciable in weight to hot water.

FERRUM OXYDATUM SACCHARATUM SOLUBILE.

SACCHARATED OXIDE OF IRON. EISENZUCKER.

Dissolve

Powdered Sugar, *nine parts* 9

in

Water, *nine parts* 9

Then add

Solution of Chloride of Iron, *thirty parts* 30

and afterward, while stirring, a cold solution prepared with the aid of heat from

Carbonate of Sodium, *twenty-four parts* 24

and

Water, *forty-eight parts* 48

When the evolution of carbonic acid has ceased, add gradually

Solution of Soda, *twenty-four parts* 24

and allow the mixture to stand until clear.

Having next added

Bicarbonate of Sodium, *nine parts* 9

dilute the mixture at once with

Boiling Water, *six hundred parts* 600

and set it aside to settle. Draw off the supernatant liquid, by means of a siphon, and mix the precipitate with

Hot Water, *four hundred parts* 400

After the liquid has become clear, remove it from the precipitate, and treat the latter in the same manner once more with

Hot Water, *four hundred parts* 400

Having finally collected the precipitate, on a moistened strainer, wash it with hot water until a small portion of the washing, diluted with 5 volumes of water, is no longer rendered more than

opalescent by nitrate of silver. Then express the precipitate; transfer it to a porcelain capsule, and, having mixed it with

Powdered Sugar, *fifty parts* 50

evaporate to dryness, while stirring, by means of a steam-bath. Now reduce the mass to powder; and add enough powdered sugar to make the product weigh

One hundred parts 100

A reddish-brown powder, having a sweet, slightly ferruginous taste; containing 3 per cent. of iron, and dissolving in 20 times its weight of hot water, yielding a perfectly clear, reddish-brown solution, with scarcely an alkaline reaction. This solution is not affected by ferrocyanide of potassium alone, but on the addition of hydrochloric acid it assumes a color which is, at first, dirty green, and then passes into a pure blue.

An aqueous solution (1=20), heated with an excess of diluted sulphuric acid, and allowed to cool, should not be rendered more than opalescent by nitrate of silver.

Ignite 2 Gm. of the Preparation, with access of air, until the sugar is decomposed; reduce the residue to powder and repeatedly exhaust it with hot hydrochloric acid. Heat the filtrate, after the addition of a few crystals of chlorate of potassium, until the iron is wholly oxidized, and the chlorine is expelled. When the liquid is cold add 1 Gm. of iodide of potassium in a glass-stoppered bottle, and set it aside in a moderately warm place for an hour. If now treated with volumetric solution of starch it should require, at least, 10 to 10.7 C.c. of volumetric solution of hyposulphite of sodium to combine with the liberated iodine.

FERRUM PULVERATUM.

Powdered Iron. Gepulvertes Eisen.

(*Eisenpulver; Limatura Martis præparata.*)

A fine, heavy, gray powder of a slight metallic lustre, and having the property of being attracted by a magnet. It dissolves in diluted sulphuric or hydrochloric acid, with evolution of hydrogen gas. The solution affords, even when largely diluted, a deep blue precipitate with ferricyanide of potassium.

Two Gm. of Powdered Iron should readily dissolve in 30 Gm. of a mixture of equal parts of hydrochloric acid and water, without leaving more than a minute residue.

The liberated hydrogen should not instantly impart a yellow or brown

tint to a strip of paper moistened with solution of nitrate of silver (1=2). A portion of the acid solution, when covered with a stratum of aqueous solution of hydrosulphuric acid, should not exhibit a dark zone at the point of contact of the two liquids ; another portion of the same solution, after the oxidation of the iron, by means of nitric acid, and the complete precipitation of the oxide by excess of water of ammonia, should yield a filtrate which affords no white turbidity with sulphide of ammonium. The part remaining undissolved in hydrochloric acid, when dissolved in nitric acid, should form a solution, not becoming dark with hydrosulphuric acid, nor blue with excess of water of ammonia.

0.1 Gm. of Powdered Iron dissolved in 15 Gm. of diluted sulphuric acid, with exclusion of air, should require not less than 55.5 C.c. of volumetric solution of permanganate of potassium for its oxidation.

FERRUM REDUCTUM.

Reduced Iron. Reducirtes Eisen.

A gray, lustreless powder, having the property of being attracted by a magnet. When ignited it is reduced to black [ferroso-ferric] oxide of iron.

In 30 Gm. of a warm mixture of equal parts of hydrochloric acid and water, 2 Gm. of the Reduced Iron should dissolve wholly, or very nearly so, with evolution of a gas, which should not instantly impart a yellow or brown tint to a strip of paper moistened with solution of nitrate of silver (1=2). The undissolved portion should not exceed 0.02 Gm.

When 0.3 Gm. of the Iron is digested, with exclusion of air, for an hour on a water-bath, with 50 Gm. of the test-solution of bichloride of mercury, the volume made up after cooling to 100 C.c., and, after being mixed, set aside to deposit—25 C.c. of the clear liquid should require not less than 38 C.c. of volumetric solution of permanganate of potassium for its oxidation : corresponding to 89.75 per cent. of metallic iron.

FERRUM SESQUICHLORATUM.

Chloride of Iron. Eisenchlorid.

[*Ferri Chloridum, U. S. Ph. ; Ferric Chloride ; Sesquichloride of Iron ; Perchloride of Iron.*]

(*Ferrum muriaticum oxydatum.*)

Evaporate 1,000 *parts* of Solution of Chloride of Iron, on a water-bath, to 483 *parts ;* then set the residue aside, in a covered capsule, in a cool and dry place, until it forms a solid mass.

A yellow, dry, crystalline mass, which soon deliquesces in moist air. It fuses at a moderate heat ; and is soluble in water, alcohol, and ether. When dissolved in an equal part of water, it should respond to the tests of purity prescribed for Solution of Chloride of Iron.

FERRUM SULFURICUM.

SULPHATE OF IRON. FERROSULFAT.

[*Ferri Sulphas Præcipitatus, U. S. Ph. ; Precipitated Sulphate of Iron.*]

(*Schwefelsaures Eisenoxydul ; Reiner Eisenvitriol ; Vitriolum Martis purum.*)

Pour upon 2 *parts* of pure Iron Wire, a mixture of 3 *parts* of Sulphuric Acid, and 8 *parts* of Water. As soon as the evolution of gas has ceased, and while the solution is still warm, filter it into 4 *parts* of Alcohol, which should be kept in a rotary motion. Transfer the crystalline mass immediately to a filter, and wash it with a little alcohol ; then express and spread it at once on bibulous paper, so that it may dry rapidly, which is best accomplished by exposing it to the direct rays of the sun, until the crystalline grains no longer cohere together.

A crystalline powder, efflorescent in dry air ; soluble in 1.8 part of water, yielding a greenish-blue solution. A solution of the Salt, even when highly diluted, affords a deep-blue precipitate with ferricyanide of potassium ; and with nitrate of barium a white precipitate insoluble in hydrochloric acid.

A solution of the Salt, freshly prepared with cold, recently boiled water, should be clear, of a greenish-blue color and almost without action on blue litmus paper.

To oxidize 0.5 Gm. of the Salt, dissolved in 20 Gm. of diluted sulphuric acid and 150 Gm. of water, should require 56 to 57 C.c. of volumetric solution of permanganate of potassium.

When 2 Gm. of the Salt, dissolved in water, are oxidized with nitric acid, and the liquid treated with an excess of water of ammonia, the colorless filtrate should not be rendered turbid by sulphide of ammonium, nor should it leave a residue on evaporation and subsequent ignition.

FERRUM SULFURICUM CRUDUM.

COMMERCIAL SULPHATE OF IRON. EISENVITRIOL.

[*Copperas ; Green Vitriol.*]

(*Ferrum sulfuricum venale ; Vitriolum Martis ; Grüner Vitriol.*)

Crystals or crystalline fragments of a green color, generally somewhat moist, more rarely coated with a whitish dust. The Salt yields, with 2

parts of water, a slightly turbid solution of an acid reaction and of an astringent, inky taste.

The aqueous solution (1=5) should exhibit a bluish-green color, should not deposit an abundant ochre-like sediment, and be rendered not more than faintly brown by hydrosulphuric acid.

FERRUM SULFURICUM SICCUM.

Dried Sulphate of Iron. Entwässertes Ferrosulfat.

[*Ferri Sulphas Exsiccatus, U. S. Ph.*]

(*Entwässertes Schwefelsaures Eisenoxydul.*)

Heat gradually 100 parts of (Precipitated) Sulphate of Iron, in a porcelain capsule, on a water-bath, until the Salt loses 35 to 36 parts of its weight.

A fine, white powder, dissolving slowly, but without residue in water. To oxidize the iron of 0.3 Gm. of the Salt, should require 51.5 to 52.5 C.c. of the volumetric solution of permanganate of potassium.

FLORES ARNICÆ.

Arnica Flowers. Arnicablüthen.

[*Arnicæ Flores, U. S. Ph.*]

(*Wohlverleihblüthen.*)

The flower-heads of *Arnica montana.*

The involucre, consisting of two rows of hairy scales, encloses a pitted, hairy, and highly convex receptacle, having a diameter up to 6 millimeters, and supporting about 20 ten-nerved, ligulate ray-florets, and numerous, but much shorter, disk-florets; all having a reddish-yellow color, and the structure of the flowers of the composite family. The bristly, five-angled fruit is up to 6 millimeters long, from a yellowish-gray to a blackish color, and crowned by a sharp, rigid pappus about 8 millimeters in length.

Only the florets, separated from the involucre and receptacle, should be employed. The odor of Arnica Flowers is faintly aromatic; the taste is somewhat bitter.

FLORES CHAMOMILLÆ.

Matricaria. Kamillen.

[*Matricaria, U. S. Ph.; German Chamomile.*]

(*Gemeine Kamillenblüthen.*)

The flower-heads of *Matricaria Chamomilla.*

In all parts glabrous; the involucre of scarious-margined scales en-

closes a naked, conical receptacle about 5 millimeters high and 1.5 millimeter in diameter, and which differs from all allied plants, by being hollow, and not filled with pith. The 12 to 18 ray-florets should be white, and the much more numerous disk-florets, yellow. The flower-heads should have a strongly aromatic odor, and a somewhat bitter taste.

FLORES CINÆ.

SANTONICA. WURMSAMEN.

[*Santonica, U. S. Ph.; Levant Wormseed.*]

(*Semen Cinæ; Semen Sanctum; Semen Santonici; Zittwerblüthen; Zittwersamen.*)

The flower-heads of a variety of *Artemisia maritima*, indigenous in Turkestan. Consisting of 12 to 18 smooth, slightly keeled, obovate involucre scales, of a somewhat glossy green color, changing to brown when kept for some time. The scales close tightly together at the top, enclosing 3 to 5 separate, rather inconspicuous florets, the whole head being about 4 millimeters long and 1.5 millimeter in diameter.

Santonica has a very peculiar odor, and a disagreeably bitter and cooling aromatic taste. It should be free from the admixture of leaves, stems, and petioles.

FLORES KOSO.

BRAYERA. KOSOBLÜTHEN.

[*Brayera, U. S. Ph.; Koosso.*]

(*Flores Kosso; Flores Brayeræ anthelminticæ.*)

The female flowers, or the numerously branched panicles, of *Hagenia Abyssinica*, collected after flowering. The 4 or 5 segments of the outer calyx are veined, hairy at the base, about 1 centimeter long, and of a dark-red color, becoming more brownish by keeping. The segments of the inner calyx are scarcely 3 millimeters long, bending over the still smaller petals and the two setose styles. The flowers are situated rather closely together, on refracted, generally very hairy pedicels, 1 to 2 millimeters thick, all of which are disposed on a general stalk about 1 centimeter thick and numerously beset with simple hairs. When in entire panicles, the drug occurs in bundles of 5 decimeters in length, bound spirally with split culms of *Cyperus articulatus*, each bundle weighing about 120 Gm. Brayera has a mucilaginous, afterward acridly bitter and astringent taste. The pedicels should be removed before the drug is employed.

FLORES LAVANDULÆ.

LAVENDER FLOWERS. LAVENDELBLÜTHEN.

[*Lavandula, U. S. Ph.; Lavender.*]

(*Flores Lavendulæ.*)

The flowers of *Lavandula vera.* The calyx is tubular-campanulate, 5 millimeters long, with 13 longitudinal nerves; it has a steel-blue color, or brownish bloom, and is sprinkled with graceful tufts of stellate hairs, beyond which the 4 shorter calyx-teeth scarcely project, while the fifth, larger tooth, is more conspicuous by its dark-blue color. The tube of the corolla is brownish or bluish, exserted and dilating into two lips.

Lavender Flowers have an agreeable odor and a bitter taste. Stems and leaves should be rejected.

FLORES MALVÆ.

MALLOW FLOWERS. MALVENBLÜTHEN.

(*Flores Malvæ silvestris; Flores Malvæ vulgaris.*)

The flowers of *Malva silvestris.* The calyx is 5 millimeters high, five-cleft, stellate-hairy, supported by 3 lanceolate, striate, bristly involucel leaves. Petals 5, notched at the summit, 2 centimeters long, united at the base with the tube of the monadelphous stamens. The delicate blue of the flowers is changed to red by acids, and to green by water of ammonia.

FLORES ROSÆ.

ROSE LEAVES. ROSENBLÄTTER.

[*Rosa Centifolia, U. S. Ph.; Pale Rose.*]

The pale-red, fragrant petals of *Rosa centifolia.*

FLORES SAMBUCI.

ELDER FLOWERS. HOLLUNDERBLÜTHEN.

[*Sambucus, U. S. P.*]

(*Fliederblumen.*)

The inflorescence of *Sambucus nigra.* Each of the 5 branches of the cyme separates into 3 or 5 branchlets, which again fork, and at last branch into pedicels of about 6 millimeters in length, each bearing a terminal flower. Stamens 5; lobes of the corolla and segments of the calyx, also, of the same number. Lobes of the corolla whitish, alternat-

ing with the much smaller calyx teeth. In the recent state the corolla is flat, but shrinks much in drying. Elder Flowers have a faint, peculiar odor and but little taste. They should not have a brown color.

FLORES TILIÆ.

LINDEN FLOWERS. LINDENBLÜTHEN.

The cymes of *Tilia parvifolia* and *Tilia grandifolia*. The smooth peduncle is united in half its length, with a thin, distinctly transparent, leaf-like bract, supporting in the first-named species as high as 13 pedicled flowers; in the other species only 3 to 5, but considerably larger ones, having dark yellowish-brown petals. Stamens numerous; sepals, petals, and ovary cells are 5 in number.

The flowers of *Tilia tomentosa* (*Tilia argentea*) are larger, and besides having the 5 corolla leaves, are provided with 5 petaloid scales; the leaf-like bract is broadest at the front, having a width frequently of 2 centimeters and generally beset, on the under side, with stellate hairs. These flowers should not be employed.

FLORES VERBASCI.

MULLEIN FLOWERS. WOLLBLUMEN.

(*Königskerzen.*)

The flowers of *Verbascum phlomoides* (including *Verbascum thapsiforme*).

From the very short corolla tube, which is only 2 millimeters wide, project 5 broad and rounded lobes, up to 1.5 centimeter in length, having a beautiful yellow color, on the inside smooth, and the outside beset with stellate hairs. At the bottom of the larger corolla lobe arise 2 smooth stamens; and the three bearded and somewhat shorter ones, correspond to the 3 remaining clefts of the corolla. Mullein flowers should have a strong odor, and no brown color.

FOLIA ALTHÆÆ.

ALTHÆA LEAVES. EIBISCHBLÄTTER.

[*Marshmallow Leaves.*]

(*Herba Althææ.*)

The leaves of *Althæa officinalis*. They are round-elliptical, three- to five-lobed; base either truncate, cordate, or wedge-shaped; margin crenate or serrate. The largest leaves are up to 8 centimeters broad, with a petiole at most half as long. The leaves are of a compact, brittle structure, and on both sides tomentose from the presence of stellate hairs.

FOLIA BELLADONNÆ.

BELLADONNA LEAVES. BELLADONNABLÄTTER.

[*Belladonnæ Folia, U. S. Ph.*]

(*Tollkirschblätter.*)

The leaves of *Atropa Belladonna*. They are at the most 2 decimeters long and 1 decimeter broad; elliptical-pointed, tapering into a petiole of less than half the length of the leaf. They are thin, smooth, or sparingly ciliate-glandular on the lower surface; margin entire; upper surface brownish-green, more gray beneath; both sides beset with small, white points. They have a somewhat disagreeable and slightly bitter taste.

For the preparation of the extract, the fresh part of the plant, above ground, should be employed.

The leaves should be cautiously preserved.

Largest single dose ..... **0.2 Gm.**
Largest daily dose ..... **0.6 Gm.**

FOLIA DIGITALIS.

DIGITALIS LEAVES. FINGERHUTBLÄTTER.

[*Digitalis, U. S. P.; Foxglove.*]

(*Herba Digitalis purpureæ.*)

The leaves of *Digitalis purpurea*, collected from wild-growing plants during flowering. They are thin, irregularly crenate, oblong-ovate, narrowing into the petiole. The largest leaves are 3 decimeters long and 15 centimeters broad; very prominently marked, especially on the under surface, by branched, reticulate veins, which are clothed with soft, unentangled, woolly hairs. The leaves yield, with 10 parts of boiling water, a brown, disagreeably bitter, non-aromatic infusion, which reddens litmus paper, and has a peculiar odor. Ferric chloride renders the infusion dark colored, without causing turbidity at first; but in a few hours a brown precipitate is thrown down. When the infusion is diluted with 3 times its volume of water, a turbidity should be produced by dropping into it a solution of tannic acid; in the undiluted infusion the same reagent produces a copious precipitate, which is only with difficulty soluble in an excess of tannic acid.

The leaves should be cautiously preserved, and not be kept longer than one year.

Largest single dose ..... **0.2 Gm.**
Largest daily dose ..... **1.0 Gm.**

FOLIA FARFARÆ.

COLTSFOOT LEAVES. HUFLATTIGBLÄTTER.

(*Herba Farfaræ; Herba Tussilaginis.*)

The radical, long-petioled leaves of *Tussilago Farfara*, of the size of a hand.

From the heart-shaped base to the slightly projected apex, they often attain a length of 1 decimeter, and an equal breadth. The upper surface is dark-green, the lower densely tomentose from the presence of very long, thin, white, unbranched hairs, which are readily rubbed off.

FOLIA JABORANDI.

PILOCARPUS. JABORANDIBLÄTTER.

(*Pilocarpus, U. S. Ph.; Jaborandi Leaves.*)

The pinnate, long-petioled and generally smooth leaves of *Pilocarpus pennatifolius.*

They consist of 2 or 3, more rarely of 4 pairs of sessile or short-stalked leaflets, with an odd, terminal one, which is borne on a leaf-stalk up to 3 centimeters long. They are coarsely coriaceous, entire, lanceolate or oval, somewhat obtuse or emarginate, sometimes up to 16 centimeters long and 4 to 7 centimeters broad. The surface-structure of the leaves reveals the presence of very numerous, pellucid oil-cells. They have a somewhat acrid taste.

FOLIA JUGLANDIS.

WALNUT LEAVES. WALNUSBLÄTTER.

The leaves of *Juglans regia.* The main leaf-stalk, nearly a foot long, bears 1 to 4, mostly 3 pairs of leaflets, not exactly set opposite to each other, with one, generally larger, odd, terminal one. The former attain a length of 15 centimeters and a width of more than 5 centimeters. They are all oval, entire, smooth and not punctate when viewed by transmitted light; their taste is acrid, but scarcely aromatic.

Walnut Leaves should have no blackish color.

FOLIA MALVÆ.

MALLOW LEAVES. MALVENBLÄTTER.

(*Herba Malvæ.*)

The leaves of *Malva vulgaris* and *Malva silvestris.* The leaves of the former species are approximately orbiculate, or somewhat kidney-shaped, with a deep sinus at the base, and are sometimes 8 centimeters in diameter. The petiole is very long; margin of the leaf unequally

serrate-crenate, and indistinctly lobed. The sinus at the base of the mostly larger leaves of the second species is not so deep, especially in the upper three- or five-lobed stem-leaves. The leaves of both species are mucilaginous.

FOLIA MELISSÆ.

MELISSA. MELISSENBLÄTTER.

[*Melissa, U. S. Ph.; Balm.*]

(*Herba Melissæ.*)

The leaves of cultivated forms of *Melissa officinalis*. They are broadly ovate or heart-shaped, obtuse, thin, smooth, or somewhat hairy beneath; not over 4 centimeters long and 3 centimeters broad. The margin of each half of the leaf-blade is furnished with 5 to 10 roundish-crenate teeth.

FOLIA MENTHÆ CRISPÆ.

CURLED MINT. KRAUSEMINZBLÄTTER.

(*Herba Menthæ crispæ.*)

The leaves of the cultivated herb, known as *Mentha crispa*. They are sessile, or borne on very short petioles, heart-shaped or roundish-ovate, sharply toothed, pointed; surface wavy, smooth, or somewhat hairy; margin reflexed-curled.

Curled Mint has a strong, peculiar odor.

FOLIA MENTHÆ PIPERITÆ.

PEPPERMINT. PFEFFERMINZBLÄTTER.

[*Mentha Piperita, U. S. Ph.*]

(*Herba Menthæ piperitæ.*)

The leaves of *Mentha piperita*. They are acute-ovate, short-petioled, up to 7 centimeters long, sharply toothed, especially toward the apex, mostly smooth, marked with a prominent midrib, and have a strong peculiar taste.

FOLIA NICOTIANÆ.

TOBACCO. TABAKBLÄTTER.

[*Tabacum, U. S. Ph.*]

The middle-sized leaves of cultivated forms of *Nicotiana Tabacum*, dried in the air without other treatment. They are brown, acute-lanceolate or elliptical, entire, decurrent, and have a disagreeable, acrid taste, and a peculiar odor.

FOLIA SALVIÆ.

SAGE. SALBEIBLÄTTER.

[*Salvia, U. S. P.*]

(*Herba Salviæ.*)

The leaves of *Salvia officinalis*, either cultivated or wild-growing; mostly ovate, some nearly 1 decimeter long, others much smaller, sometimes with an auriculate base. The numerously branched, reticulate, rugose veins of the leaves are beset with gray, woolly hairs.

Sage has an aromatic and somewhat bitter taste.

FOLIA SENNÆ.

SENNA. SENNESBLÄTTER.

[*Senna, U. S. Ph.*]

The leaflets of *Cassia angustifolia* and *Cassia acutifolia*. The former—East Indian Senna, from Tinnevelly—consist exclusively of the unbroken flat, lanceolate leaflets, about 6 centimeters long and 2 centimeters broad. The leaflets of the second species—Alexandria Senna—are rather smaller, acute-ovate, rarely 3 centimeters long, and usually less than 13 millimeters in width; they are less flat and generally accompanied by other parts of *Cassia acutifolia*, and, also, by leaflets of *Cynanchum Arghel*, which are rigidly coriaceous, recurved and gibbous, and may be further known by being beset with short, stiff hairs.

Senna should not have a brownish or yellowish color.

FOLIA STRAMONII.

STRAMONIUM LEAVES. STECHAPFELBLÄTTER.

[*Stramonii Folia, U. S. Ph.*]

(*Herba Stramonii.*)

The leaves of *Datura Stramonium*, collected at the time of flowering. The thin leaf-blade is acute-ovate, unequally sinuate-toothed; larger lobes with 1 to 2 pairs of additional teeth. The leaves are, at most, 2 decimeters long and on an average 1 decimeter in width, and have a wedge-shaped or nearly cordate base attached to a petiole up to 1 decimeter in length and 1 to 2 millimeters thick. The taste is disagreeably bitter, and somewhat salty.

The leaves should be cautiously preserved.

Largest single dose..... 0.2 Gm.
Largest daily dose..... 1.0 Gm.

FOLIA TRIFOLII FIBRINI.

BUCKBEAN LEAVES. BITTERKLEE.

(*Herba Trifolii fibrini; Fieberklee; Dreiblatt.*)

The three-parted leaves of *Menyanthes trifoliata*, supported on a petiole up to 1 decimeter long and 5 millimeters thick. The segments of the leaf (leaflets) are about 8 centimeters long and half as broad; thickish, roundly ovate, entire or broadly crenate, and ending in an obtuse apex. Taste very bitter.

FOLIA UVÆ URSI.

UVA URSI. BÄRENTRAUBENBLÄTTER.

[*Uva Ursi, U. S. Ph.; Bearberry.*]

(*Folia Arctostaphyli; Herba Uvæ Ursi.*)

The leaves of *Arctostaphylos Uva ursi*. The leaf-blade is stiffly coriaceous, upper surface subcanaliculate, prominently marked with reticulated veins, not over 2 centimeters long, and up to 2 millimeters broad at the outer half; narrowing abruptly into a petiole of only about 3 millimeters in length. The leaves are entire; but many appear emarginate on account of the recurved, somewhat obtuse apex. The lower surface exhibits no glandular points.

Uva Ursi has a harsh, astringent taste.

If 1 part of the leaves be macerated in 50 parts of water for a few hours, the filtered liquid, when shaken with a small crystal of ferrous sulphate, acquires a red color, changing afterward to violet, and deposits, after a while, a precipitate of a handsome, dark-violet color.

FRUCTUS ANISI.

ANISE. ANIS.

[*Anisum, U. S. Ph.*]

(*Fructus Anisi vulgaris; Semen Anisi vulgaris.*)

The fruit of *Pimpinella Anisum*. Up to 3 millimeters in diameter a little above the base, and up to about 5 millimeters in length; narrowing abruptly toward the apex; of a dull greenish-gray color; traversed by 10 straight, smooth, somewhat lighter colored, longitudinal ribs, and densely beset with bristly hairs. Taste and odor strongly aromatic.

FRUCTUS AURANTII IMMATURI.

ORANGE BERRIES. UNREIFE POMERANZEN.

[*Unripe Oranges.*]

(*Aurantia immatura.*)

The hard, globular fruit of *Citrus vulgaris*, collected before maturity, and measuring from 5 to 15 millimeters in diameter. A transverse section through the lower half exhibits, immediately beneath the dull, greenish-gray, coarse-grained surface, numerous oil-glands, and 8 or 10, more rarely 12 cells, united in the centre of the fruit. The taste and odor are strongly aromatic, and the outer layers abound in a bitter substance.

FRUCTUS CAPSICI.

CAPSICUM. SPANISCHER PFEFFER.

[*Capsicum, U. S. Ph.; Cayenne Pepper.*]

(*Piper Hispanicum.*)

The fruit of *Capsicum annuum* (including *Capsicum longum*). Conical, from 5 to 10 centimeters long, at the base about 4 centimeters in diameter, having a thin, red, yellowish-red, or brownish-red, smooth and shining pericarp. The larger portion of the fruit is hollow, containing, only in the lower half, numerous disk-shaped, yellowish seeds of about 5 millimeters in diameter.

Capsicum has a strongly burning taste.

FRUCTUS CARDAMOMI.

CARDAMOM. MALABARISCHE CARDAMOMEN.

[*Cardamomum, U. S. Ph.; Small Cardamom; Malabar Cardamom.*]

(*Cardamomum minus; Cardamomum Malabaricum; Kleine Cardamomen.*)

The fruit of *Elettaria Cardamomum*, having a smooth, obtusely triangular capsule. The light yellowish-gray variety, from 1 to 2 centimeters in length and about 1 centimeter in thickness, should be selected. Each of the 3 valves is traversed (externally) by about 12 prominent, longitudinal ribs. The capsule is crowned with a tubular beak 1 to 2 millimeters in length; and it encloses, in three vertical rows, about 20 brown, irregularly angular, rugose seeds, which alone possess the strong, somewhat camphorous odor and taste.

FRUCTUS CARVI.

CARAWAY. KÜMMEL.

[*Carum, U. S. Ph.*]

(*Semen Carvi.*)

The fruit of *Carum Carvi*, of a brown color, usually separated into the two mericarps, which are somewhat curved, tapering at each end, up to 5 millimeters long and 1 millimeter broad, containing an oil-tube in each of the four recesses bounded by 5 light-colored filiform ribs; and two additional oil-tubes on the inner face (commissure).

Caraway has a strong and peculiar odor and taste.

FRUCTUS COLOCYNTHIDIS.

COLOCYNTH. COLOQUINTEN.

[*Colocynthis, U. S. Ph.*]

(*Colocynthis; Poma Colocynthidis.*)

The globular fruit of *Citrullus Colocynthis*, deprived of its rind. The white, soft, spongy texture of the fruit has a very bitter taste, and readily breaks into 3 vertical parts which contain the numerous seeds.

It should be cautiously preserved.

Largest single dose..... 0.3 Gm.
Largest daily dose..... 1.0 Gm.

FRUCTUS FŒNICULI.

FENNEL. FENCHEL.

[*Fœniculum, U. S. Ph.*]

(*Semen Fœniculi; Fenchel Samen.*)

The brownish-green variety of the fruit of *Fœniculum capillaceum*, about 8 millimeters long and 3 millimeters in diameter. Dark-colored oil-tubes are visible between the light-colored ribs, of which the marginal ones are the most prominent. The fruit is usually separated into the two mericarps. Odor and taste sweet and aromatic.

FRUCTUS JUNIPERI.

JUNIPER. WACHOLDERBEEREN.

[*Juniperus, U. S. Ph.; Juniper Berries.*]

(*Baccæ Juniperi.*)

The globular, berry-like fruit of *Juniperus communis*, up to 9 millimeters in diameter. Surface shining, dark-brown, with a bluish bloom;

the crown marked with a tri-radiate suture and the base furnished with 2 three-parted whorls of brown, bracteal scales. The sweetish, strongly aromatic, fleshy pulp of the fruit encloses 3 vertical, hard, angular seeds, which contain several oil-glands.

FRUCTUS LAURI.

BAY BERRIES. LORBEEREN.

(*Baccæ Lauri.*)

The globular or oblong-globular berries of *Laurus nobilis*, up to 15 millimeters in diameter. The pericarp is scarcely 0.5 millimeter thick; externally brownish-black, internally brown; and is nearly filled with a brownish seed-kernel readily separating into the two cotyledons.

Bay Berries are very aromatic, and have a bitter, somewhat harsh taste.

FRUCTUS PAPAVERIS IMMATURI.

POPPY HEADS. UNREIFE MOHNKÖPFE.

(*Capsulæ Papaveris; Capita Papaveris; Fructus Papaveris.*)

The immature, dried fruit of *Papaver somniferum;* subglobular, of a greenish-gray color, 3 to 3.5 centimeters in diameter, and weighing, without the seeds, from 3 to 4 Gm. Crowned with the large, flat, numerously lobed disk of the stigma; the swollen base passing into the peduncle. The seeds should be removed from the capsule, before it is cut for use. Taste bitter,

FRUCTUS PHELLANDRII.

WATER-FENNEL. WASSERFENCHEL.

[*Fine-leaved Water-Hemlock*]

(*Semen Phellandrii aquatici.*)

The mature fruit of *Oenanthe Phellandrium*, not generally separated into the two mericarps, which are about 5 millimeters long and 2 millimeters broad. The mericarps exhibit, on the light-yellowish inner face (commissure), 2 dark oil-tubes, enclosed by 2 woody marginal ribs; on the dark-brown convex back are situated 3 less prominent ribs, and a darker colored oil-tube in each of the 4 recesses between the ribs.

Water-Fennel has a pungent, aromatic taste.

FRUCTUS RHAMNI CATHARTICÆ.

BUCKTHORN BERRIES. KREUZDORNBEEREN.

(*Baccæ Spinæ cervinæ ; Baccæ Rhamni catharticæ.*)

The globular fruit of *Rhamnus cathartica*, about 1 centimeter in diameter, supported at the base by the eight-rayed disk of the calyx, which is about 3 millimeters in diameter. The pulpy envelope (sarcocarp) is shining black on the surface, and contains 4 woody cells, each enclosing a single seed. The fresh fruit yields a violet-green juice of an acid reaction, and a sweetish, afterward disagreeably bitter taste. The juice is colored greenish-yellow by alkalies, and red by acids.

FRUCTUS VANILLÆ.

VANILLA. VANILLE.

[*Vanilla, U. S. Ph.*]

(*Siliqua Vanillæ.*)

The unripe fruit of *Vanilla planifolia*. The pod is from 2 to 3 decimeters long, and, at most, 1 centimeter thick, deeply furrowed lengthwise, not opened, narrowing into the bent pedicel at the base. The glossy, dark-brown surface is often covered with small, white crystals. The soft, black pulp of the fruit has a very agreeable odor, and contains innumerable seeds, not more than 0.25 millimeter in diameter.

FUNGUS CHIRURGORUM.

SURGEONS' AGARIC. WUNDSCHWAMM.

[*Agaric of the Oak.*]

(*Boletus igniarius ; Boletus chirurgorum ; Zubereiteter Feuerschwamm.*)

The most tender and spongy part of the tissue, which can be cut from the pileus of *Polyporus fomentarius*, in connected flaps, of a fine brown color. Surgeons' Agaric, when viewed under a microscope, is observed to consist only of filiform cells. It should rapidly absorb double its weight of water, which, when expressed and evaporated should leave not more than a trifling residue. When the Fungus has been converted into spunk or tinder by being soaked in a solution of nitrate of potassium or of other salts, it should be rejected.

GALBANUM.

GALBANUM. GALBANUM.

(*Gummi-resina Galbanum; Mutterharz.*)

A gum-resin obtained from species of *Ferula* (*Peucedanum*), probably from *Ferula galbaniflua* and *Ferula rubricaulis*, growing in the northern parts of Persia. Sometimes in loose, but more generally in agglutinated tears, of a brownish or yellowish color, often somewhat greenish, the fractured surface presenting no white color, even when recently broken. It occurs, also, in masses of a nearly uniform, brown texture, which readily soften.

Galbanum has a strong, aromatic odor, and a bitter taste, with no especial sharpness. On adding a few drops of water of ammonia to 3 parts of water poured upon 1 part of the gum-resin, the water acquires a blue fluorescence. Hydrochloric acid, when left in contact with Galbanum for an hour, assumes a beautiful red color, changing to a dark-violet on the gradual addition of alcohol and heating to 60° C.

For pharmaceutical use the gum-resin should be allowed to become hard during the cold season, when it may be powdered, and the impurities removed by means of a sieve.

GALLÆ.

NUTGALL. GALLÄPFEL.

[*Galla, U. S. Ph.*]

(*Gallæ Halepenses; Gallæ Levanticæ; Gallæ Turcicæ.*)

Excrescences, not more than 25 millimeters in diameter, on the young shoots of the oriental form of *Quercus lusitanica*, caused by the puncture of the gall-fly. The upper half of the globular or pear-shaped surface is rugged and plaited. The lower half frequently contains an opening, 3 millimeters in diameter, through which the insect made its escape, and which occurs oftener in the lighter, yellowish, than in the heavier, greenish-gray nutgalls. The interior tissue is very dense, and of a whitish to brownish color.

GELATINA CARRAGEEN.

CARRAGEEN JELLY. IRLÄNDISCH-MOOS-GALLERTE.

Carrageen, *one part* 1
Water, *forty parts* 40

Expose them to the heat of a steam-bath for half an hour; then strain, and express lightly. To the strained liquid add

Sugar, *two parts* 2

and evaporate, while stirring, so that after the removal of the foam, the product will amount to

Ten parts 10

The Jelly should be prepared only when prescribed.

GELATINA LICHENIS ISLANDICI.

ICELAND MOSS JELLY. ISLÄNDISCH-MOOS-GALLERTE.

Iceland Moss, *three parts*..... 3
Water, *one hundred parts* 100

Expose them to the heat of a steam-bath, stirring occasionally, for half an hour ; then strain and express lightly. To the strained liquid add

Sugar, *three parts*..... 3

and evaporate, while stirring, so that after the removal of the foam, the product will amount to

Ten parts..... 10

The Jelly should be prepared only when prescribed.

GLANDULÆ LUPULI.

LUPULIN. HOPFENDRÜSEN.

[*Lupulinum, U. S. Ph.*]

(*Lupulin ; Hopfenmehl ; Hopfenstaub.*)

The glands of the strobiles of *Humulus Lupulus*. A coarse, irregularly grained powder, of a yellowish-brown color and adhesive while fresh. It should be free from foreign substances, except that it may contain a small amount of the unavoidable fragments of the hop plant.

On ignition, it should leave less than 10 per cent. of ash. When Lupulin is exhausted by ether, the residue should not exceed 30 per cent., and the ethereal tincture, when evaporated at a gentle heat, should leave a soft, brown extract, possessing the aroma of the hops in a high degree.

Lupulin should not be kept over a year, and should be protected from the light.

GLYCERINUM.

GLYCERIN. GLYCERIN.

(*Oelsüss.*)

A clear, colorless, and inodorous liquid of a syrupy consistence, having a sweet taste and a neutral reaction. It is soluble, in all proportions,

in water, alcohol, and spirit of ether, but insoluble in ether, chloroform, or fixed oils. Specific gravity from 1.225 to 1.235.

When Glycerin is diluted with 5 parts of water, it should remain unaffected by hydrosulphuric acid, or by solution of sulphide of ammonium, and should not be rendered turbid by nitrate of silver, nitrate of barium, oxalate of ammonium, or chloride of calcium. When heated to boiling in an open capsule and then ignited, it should be consumed without leaving a residue. It exerts no reducing action upon an ammoniacal solution of nitrate of silver, at the ordinary temperature, within half an hour. When heated with an equal volume of solution of soda, it should neither become colored nor develop ammonia ; and, when gently heated with diluted sulphuric acid, it should diffuse no disagreeable, rancid odor.

GOSSYPIUM DEPURATUM.

Purified Cotton. Gereinigte Baumwolle.

[*Gossypium, U. S. Ph. ; Cotton ; Absorbent Cotton.*]

The hairs of the seeds of *Gossypium herbaceum*, *Gossypium arboreum* and of other species of *Gossypium*.

Purified Cotton should be white, entirely free from foreign substances, and nearly so from fatty matter.

On combustion it should not leave more than 0.6 to 0.8 per cent. of ash. It should not change the color of moistened litmus paper ; and when thrown upon water, should immediately sink.

GUMMI ARABICUM.

Acacia. Arabisches Gummi.

[*Acacia, U. S. Ph. ; Gum Arabic.*]

(*Gummi Mimosæ.*)

Chiefly derived from *Acacia Senegal* (*Acacia Verek*), from the regions of the Upper Nile. The less colored sorts, which break readily into fissured, transparent fragments, should be selected. Acacia dissolves slowly, but entirely, in double its weight of water, yielding a thick, mucilaginous, adhesive, slightly yellowish liquid, which is devoid of odor and has an insipid taste. Mucilage of Acacia is miscible, without turbidity and in all proportions, with solution of acetate of lead ; but it is precipitated by alcohol ; and solution of ferric chloride changes it to a thick, gelatinous mass. A solution of the Gum, even when containing only 1 part in 5,000 parts of water, yields a precipitate with solution of subacetate of lead.

GUTTI.

GAMBOGE. GUMMIGUTT.

[*Cambogia, U. S. P.*]

(*Gummi-resina Gutti.*)

A gum-resin obtained from *Garcinia Morella.* In cylindrical pieces about 7 centimeters in diameter, or in curved and agglutinated masses, of a greenish-yellow color, breaking readily, with a flat conchoidal fracture, into reddish-yellow, opaque splinters. One part of Gamboge, triturated with 2 parts of water, yields a bright yellow emulsion, of a burning taste, becoming clear and assuming a fiery-red color on the addition of 1 part of water of ammonia; then changing to brown. On neutralizing the ammonia, a yellow, flocculent precipitate is thrown down, and the liquid becomes decolored.

It should be cautiously preserved.

Largest single dose	**0.3 Gm.**
Largest daily dose	**1.0 Gm.**

HERBA ABSINTHII.

WORMWOOD. WERMUT.

(*Summitates Absinthii.*)

The leaves and flowering tops of *Artemesia Absinthium*, either cultivated or wild-growing. The long petioled, tri-pinnate leaves of the base are roundish-triangular in outline; terminal divisions lingulate or three- to five-parted. The middle stem-leaves are bi-pinnate; the upper bracts of the numerously branched, flowering panicle entire and lanceolate. From the axils of the bracts project the single, subglobose, discoid flower-heads, about 3 millimeters in diameter, containing numerous yellow, glandular, tubular florets. The leaves and stems, especially of the wild-growing plant, are tomentose, from the presence of soft hairs which conceal numerous oil-glands. Wormwood has a strongly aromatic odor and a very bitter taste.

HERBA CANNABIS INDICÆ.

INDIAN HEMP. INDISCHER HANF.

[*Cannabis Indica, U. S. Ph.; Indian Cannabis.*]

The top-branches of the female plant of *Cannabis sativa*, grown in the northern part of the East Indies, known as *Bhang*, and collected

while the fruit is maturing. Or the warty, hirsute leaves stripped from the branches. The narrow-lanceolate, serrate leaflets are either broken, or agglutinated with the deflorate spikes, into dense bundles. The woody stems, and the pedicelled, ovate fruit, up to 5 millimeters in diameter, should be present only in small proportion. Indian Hemp should have more of a greenish than a brownish color, a strong, peculiar odor, and exhibit under the microscope numerous oil-glands. Taste indifferent.

HERBA CARDUI BENEDICTI.

BLESSED THISTLE. CARDOBENEDICTENKRAUT.

(*Folia Cardui benedicti.*)

The leaves and flowering branches of *Cnicus benedictus* (*Carbenia benedicta*). Base leaves nearly a foot long, sinuate-pinnatifid, with roundish, serrate, spiny teeth, and winged petiole. The large, separate flower-heads, which are enclosed by an involucre of thin, coriaceous, spiny scales, are surrounded by broadly ovate, sharply pointed bracts clothed with cobwebbed hairs. The heads contain yellow, tubular, hermaphrodite florets. Taste bitter.

HERBA CENTAURII.

EUROPEAN CENTAURY. TAUSENDGÜLDENKRAUT.

(*Herba Centaurii minoris.*)

The aërial parts of *Erythræa Centaurium* collected when flowering. Stem angular, upward of 2 decimeters long and 2 millimeters thick, umbellate-branched. The five red lobes of the corolla are closed after drying. Leaves sessile, entire, opposite in pairs, at the base of the stem up to 4 centimeters long and about 2 centimeters broad ; at the upper parts of the stem, smaller and more pointed. The whole plant is smooth. Taste bitter.

HERBA COCHLEARIÆ.

SCURVY-GRASS. LÖFFELKRAUT.

The herb of *Cochlearia officinalis*, collected when flowering ; as well as the very long, petioled leaves of the plant, before flowering. The leaves of the latter are from 2 to 3 centimeters broad, ovate or cordate, obtuse ; upper stem-leaves acute-ovate, with from 1 to 3 serrate teeth on each half of the leaf-blade, and clasping the stem with a deep heart-shaped base. The flowers, which are white, have the characteristic structure of the cruciferæ. The silicles, hardly 0.5 centimeter long and

supported on thin pedicels from 1 to 2 centimeters long, contain 4 reddish-brown seeds in each of the two cells.

Scurvy-Grass, when bruised, exhales a strong, mustard-like odor, and possesses a sharp and salty taste; odor and taste are lost on drying.

HERBA CONII.

CONIUM LEAVES. SCHIERLING.

[*Conium, U. S. Ph.; Hemlock; Spotted Hemlock; Poison Hemlock.*]

(*Herba Conii maculati; Herba Cicutæ.*)

The leaves and flowering tops of *Conium maculatum*. Leaves sheathing at the base; the lower ones are tri-pinnate, broadly ovate in outline, over 2 decimeters in length, and supported on hollow petioles of about the same length; the terminal divisions small, rounded, with serrate teeth, and ending in a very short, coriaceous tip. These characters belong also to the divisions of the much smaller and less compound stem leaves. The leaves and stems of Conium have a dull-green color and are entirely smooth. They give off the unpleasant odor of coniine, especially when triturated with solution of soda. Taste disagreeably saline, acrid and somewhat bitter.

Conium should be **cautiously** preserved.

Largest single dose ..... **0.3 Gm.**
Largest daily dose ..... **2.0 Gm.**

HERBA HYOSCYAMI.

HYOSCYAMUS. BILSENKRAUT.

[*Hyoscyamus, U. S. Ph.; Henbane Leaves.*]

(*Folia Hyoscyami.*)

The leaves and flowering branches of *Hyoscyamus niger*. Base leaves at most 3 decimeters long and up to 1 decimeter broad, oblong-ovate, narrowing into the petiole; margin, on either half, with 3 to 6 large crenate teeth. Stem leaves smaller, sessile; upper ones with only one tooth on each side. Corolla five-lobed, showy, delicate, light yellowish, marked with violet veins. Capsule scarious, two-celled, with a circumscissile lid. Petioles and nerves of the leaves are more densely clothed with soft white hairs on the under side, than the leaf-blade, which is often nearly smooth. Hyoscyamus, when dried, has no very marked odor or taste. For preparing the extract, the aërial parts of the flowering plant are employed.

Hyoscyamus should be **cautiously** preserved.

Largest single dose ..... **0.3 Gm.**
Largest daily dose ..... **1.5 Gm.**

HERBA LOBELIÆ.

LOBELIA. LOBELIENKRAUT.

[*Lobelia, U. S. Ph.; Indian Tobacco.*]

(*Herba Lobeliæ inflatæ.*)

The herb of *Lobelia inflata*, cut when flowering, dried, and commonly pressed into brick-shaped blocks. Leaves sessile, ovate, slightly crenate; margins of leaves glandular and bristly; the stems still more so. Flowers whitish, two-lipped, exceeded by an ovate-acuminate bract. The thin-walled capsule, crowned by the five-parted calyx, is inflated, and contains, in its two cells, very numerous, brown seeds, which are hardly 0.5 millimeter in diameter. The seeds possess, still more than the herb, an unpleasant, sharp and acrid taste.

HERBA MELILOTI.

MELILOT. STEINKLEE.

(*Summitates Meliloti.*)

The leaves and flowering branches of *Melilotus officinalis* and *Melilotus altissimus*. The petiole of about 1 centimeter in length, supports two opposite leaflets, and one, often longer, petioled terminal one; all are obtuse-lanceolate, sharply toothed, and up to 4 centimeters long. The numerous, yellow, papilionaceous flowers are arranged on long one-sided racemes. Fruit small, one- to three-seeded, wrinkled; in *Melilotus officinalis* smooth and brown; in *Melilotus altissimus* clothed with blackish hairs, and more distinctly acuminate. Melilot is very fragrant.

HERBA SERPYLLI.

WILD THYME. QUENDEL.

[*Mother of Thyme; Creeping Thyme.*]

(*Feldkümmelkraut.*)

The leafy, flowering branches of *Thymus Serpyllum*, about 1 millimeter thick. Leaves round-ovate to narrow-lanceolate, glandular, at most 1 centimeter long and 7 millimeters broad, narrowing into the petiole which is about 3 millimeters long. Flowers small, bilabiate, whitish or purplish, in numerous, apparently verticillate, terminal heads. Wild Thyme has a strong, aromatic odor and taste.

HERBA THYMI.

GARDEN THYME. THYMIAN.

(*Gartenthymian; Römischer Quendel.*)

The leafy, flowering branches of *Thymus vulgaris*, either cultivated or wild-growing. Leaves thickish, up to 9 millimeters long, and at most 3 millimeters broad, sessile or short-petiolate; nearly obtuse needle-shaped, margins revolute, more or less hairy and provided with large oil-glands. The pale-reddish, bilabiate corolla exceeds the bristly, glandular calyx. Odor and taste highly aromatic.

HERBA VIOLÆ TRICOLORIS.

PANSY. STIEFMÜTTERCHEN.

[*Viola Tricolor, U. S. Ph.*]

(*Freisamkraut; Herba Jaceæ.*)

The flowering herb of the wild-growing variety of *Viola tricolor*. Stem hollow and angular; furnished, up to the middle, with broad, long-petioled leaves with repand margins. Upper leaves more serrate, and with shorter petioles. Stipules quite large, lyrate-pinnatifid, often with very large, terminal lobes. Peduncles 5 centimeters and upward in length, curved at the top, and supporting an irregular, five-petaled, sublabiate, spurred corolla, of a pale-violet, or light-yellow color.

HIRUDINES.

LEECH. BLUTEGEL.

The German Leech, *Sanguisuga medicinalis*, is marked on the back, which usually has a green ground, with six red, black-spotted, longitudinal stripes; the belly is lighter in color, greenish-yellow, and spotted with black. The Hungarian Leech, *Sanguisuga officinalis*, is marked on the back with six broader, yellow longitudinal stripes, interrupted by black dots, or, often, larger black spots; the belly is light-green with a black margin, and not spotted. The Leech should weigh between 1 and 5 Gm.

HYDRARGYRUM.

MERCURY. QUECKSILBER.

[*Quicksilver.*]

(*Mercurius vivus.*)

A liquid metal of the specific gravity 13.57, volatilizable by heat.

HYDRARGYRUM BICHLORATUM.

CORROSIVE CHLORIDE OF MERCURY. QUECKSILBERCHLORID.

[*Hydrargyri Chloridum Corrosivum, U. S. Ph.; Corrosive Sublimate; Mercuric Chloride; Bichloride of Mercury; Perchloride of Mercury.*]

(*Aetzendes Quecksilberchlorid; Aetzsublimat; Mercurius sublimatus corrosivus.*)

White, translucent, radially crystalline masses; on trituration yielding a white powder, fusing and volatilizing when heated in a test-tube. Specific gravity 5.3.

The Salt is soluble in 16 parts of cold, and in 3 parts of boiling water; also soluble in 3 parts of alcohol and in 4 parts of ether. The aqueous solution has an acid reaction, becoming neutral on the addition of chloride of sodium. When the aqueous solution is acidulated with nitric acid, it yields a white precipitate with nitrate of silver, and a black one with hydrosulphuric acid in excess.

When the mercury is all precipitated from the aqueous solution by hydrosulphuric acid, the colorless filtrate should not leave a residue on evaporation; and the resulting sulphide of mercury, when shaken with diluted water of ammonia yields a filtrate which, when acidulated, and treated with hydrosulphuric acid, should not give a precipitate of sulphide of arsenic.

It should be very cautiously preserved.

Largest single dose ..... **0.03 Gm.**
Largest daily dose ..... **0.1 Gm.**

HYDRARGYRUM BIJODATUM.

RED IODIDE OF MERCURY. QUECKSILBERJODID.

[*Hydrargyri Iodidum Rubrum, U. S. Ph.; Biniodide of Mercury; Mercuric Iodide.*]

(*Rothes Jodquecksilber; Zweifach Jodquecksilber; Deutojoduretum Hydrargyri; Mercurius jodatus ruber.*)

Dissolve

Corrosive Chloride of Mercury, *four parts* 4

in

Water, *eighty parts* 80

Dissolve, also,

Iodide of Potassium, *five parts* 5

in

Water, *fifteen parts* 15

Mix the clear solutions, while stirring, and, having separated the precipitate by filtration, wash it with water and dry it at 100° C.

A scarlet-red powder which, when heated in a glass tube, first assumes a yellow color, then fuses, and is finally volatilized. Soluble in 130 parts of cold, and in 20 parts of boiling alcohol; almost insoluble in water.

A cold, alcoholic solution should be colorless, free from acid reaction, and at most colored brown, but not rendered turbid, by water of ammonia. Water, agitated with Red Iodide of Mercury, should not be affected by hydrosulphuric acid or nitrate of silver.

It should be **very cautiously** preserved and protected from the light.

Largest single dose..... 0.03 Gm.
Largest daily dose..... 0.1 Gm.

HYDRARGYRUM CHLORATUM.

MILD CHLORIDE OF MERCURY. QUECKSILBERCHLORÜR.

[*Calomel; Mercurous Chloride.*]

(*Calomelas; Hydrargyrum chloratum mite; Hydrargyrum chloratum mite lævigatum; Hydrargyrum muriaticum mite; Calomel.*)

Radially crystalline masses prepared by sublimation, having the specific gravity 7.0, and yielding a yellowish powder which appears distinctly crystalline when magnified one hundred times. Insoluble in water or alcohol. When heated in a test-tube it volatilizes without melting.

On heating Calomel with solution of soda, it blackens without evolving the odor of ammonia. When moistened and placed on polished iron, it should not produce a dark stain on the same within one minute.

It should be **cautiously** preserved, and protected from the light.

HYDRARGYRUM CHLORATUM VAPORE PARATUM.

HYDROSUBLIMED CALOMEL. DURCH DAMPF BEREITETES QUECKSILBERCHLORÜR.

[*Hydrargyri Chloridum Mite, U. S. Ph.; Jewell's Calomel.*]

(*Calomelas vapore paratum; Durch Dampf bereitetes Calomel.*)

A white powder obtained by rapidly cooling the vapor of mild chloride of mercury. When strongly triturated it becomes yellowish, and appears distinctly crystalline when magnified one hundred times. Insoluble in water and alcohol; when heated in a test-tube, it volatilizes without melting.

When warmed with solution of soda, it blackens without evolving the

odor of ammonia. Moistened and placed on polished iron, it should not cause a dark stain on the same within one minute.

It should be cautiously preserved, and protected from the light.

HYDRARGYRUM CYANATUM.

CYANIDE OF MERCURY. QUECKSILBERCYANID.

[*Hydrargyri Cyanidum, U. S. Ph.; Mercuric Cyanide.*]

(*Cyanquecksilber.*)

Colorless, transparent, prismatic crystals; soluble in 12.8 parts of cold, and in 3 parts of boiling water; also soluble in 14.5 parts of alcohol; very little soluble in ether.

When Cyanide of Mercury is gently heated with an equal amount of iodine, in a glass tube, a sublimate of needle-shaped crystals is produced, which is at first yellow; then changes to red, and finally becomes white.

The aqueous, neutral solution (1=20), slightly acidulated with nitric acid, and treated with a few drops of solution of nitrate of silver, should yield no precipitate. When carefully heated upon platinum foil, it should volatilize without a residue.

Cyanide of Mercury should be very cautiously preserved.

Largest single dose ..... **0.03 Gm.**
Largest daily dose ..... **0.1 Gm.**

HYDRARGYRUM JODATUM.

GREEN IODIDE OF MERCURY. QUECKSILBERJODÜR.

[*Hydrargyri Iodidum Viride, U. S. Ph.; Protiodide of Mercury; Mercurous Iodide.*]

(*Hydrargyrum jodatum flavum; Protojoduretum Hydrargyri; Gelbes Jodquecksilber; Einfaches Jodquecksilber.*)

Purified Mercury, *eight parts*	8
Iodine, *five parts*	5

Rub the Iodine gradually with the Mercury, moistening the mixture with a few drops of alcohol, until no more globules of mercury are visible, and the powder has acquired a uniform, greenish-yellow color. Then wash it with alcohol and dry it with exclusion of light.

A greenish-yellow, amorphous powder of the specific gravity 7.6; sparingly soluble in water; insoluble in alcohol and ether. When heated with sulphuric acid and black oxide of manganese, it evolves copious fumes of iodine. It should be volatilized by heat; and, when

shaken with 20 parts of alcohol and filtered, the filtrate should remain almost unaffected by hydrosulphuric acid.

It should be **very cautiously** preserved, and protected from the light.

Largest single dose..... **0.05 Gm.**
Largest daily dose..... **0.2 Gm.**

HYDRARGYRUM OXYDATUM.

Red Oxide of Mercury. Quecksilberoxyd.

[*Hydrargyri Oxidum Rubrum, U. S. Ph.; Red Precipitate; Red Mercuric Oxide.*]

(*Hydrargyrum Oxydatum Rubrum; Mercurius præcipitatus ruber; Rothes Quecksilberoxyd; Rother Quecksilberpräcipitat.*)

A red, crystalline powder of the specific gravity 11.0; when finely triturated it assumes a dull, yellowish-red color. Insoluble in water; readily soluble in diluted hydrochloric or nitric acid. Heated in a test-tube it volatilizes with separation of metallic mercury.

When shaken with a solution of oxalic acid (1=12), it should not yield a white salt. A cold mixture of 1 Gm. of Red Oxide of Mercury, 5 C.c. of water and 5 C.c. of sulphuric acid, when covered with a layer of 1 C.c. of test-solution of ferrous sulphate, should exhibit no brown zone at the line of contact of the liquids.

An aqueous solution in water (1=100), prepared with the aid of nitric acid, should be clear, and should not be rendered more than opalescent by nitrate of silver.

It should be **very cautiously** preserved and protected from the light.

Largest single dose..... **0.03 Gm.**
Largest daily dose..... **0.1 Gm.**

HYDRARGYRUM OXYDATUM VIA HUMIDA PARATUM.

Yellow Oxide of Mercury. Gelbes Quecksilberoxyd.

[*Hydrargyri Oxidum Flavum, U. S. Ph.; Yellow Mercuric Oxide.*]

(*Präcipitirtes Quecksilberoxyd; Gelber Quecksilberpräcipitat.*)

Dissolve

Corrosive Chloride of Mercury, *two parts*..... 2

in

Warm Water, *twenty parts*..... 20

and gradually pour the solution, while stirring, into a cold mixture of

Solution of Soda, *six parts*..... 6

and

Water, *ten parts*..... 10

not allowing the temperature of the mixture to exceed 30° C.

Collect the precipitate, wash it with warm water, and dry it at 30° C.

A yellow, amorphous powder of the specific gravity 11.0, insoluble in water; readily soluble in diluted hydrochloric, or nitric acid. Heated in a test-tube it volatilizes, with separation of metallic mercury.

When shaken with a solution of oxalic acid (1=20), it should yield a white oxalate.

An aqueous solution (1=100), prepared with the aid of nitric acid, should be clear, and should not be rendered more than opalescent by nitrate of silver.

It should be **very cautiously** preserved and protected from the light.

Largest single dose..... 0.03 Gm.
Largest daily dose..... 0.1 Gm.

HYDRARGYRUM PRÆCIPITATUM ALBUM.

AMMONIATED MERCURY. WEISSER QUECKSILBERPRÄCIPITAT.

[*Hydrargyrum Ammoniatum, U. S. Ph.; White Precipitate.*]

(*Hydrargyrum amidato-bichloratum; Hydrargyrum ammoniato-muriaticum; Mercurius præcipitatus albus; Mercuro-ammonium-chlorid.*)

Dissolve

Corrosive Chloride of Mercury, *two parts*..... 2

in

Warm Water, *forty parts*..... 40

and, when cold, gradually add, while stirring,

Water of Ammonia, *three parts*..... 3

or a sufficient quantity, so that it shall be in slight excess. Collect the precipitate upon a filter, and when drained, wash it with

Water, *eighteen parts*..... 18

then dry it at 30° C., with exclusion of light.

White pieces or an amorphous powder, insoluble in water, readily soluble in warm nitric acid. When heated with solution of soda, yellow oxide of mercury separates with evolution of ammonia.

On heating White Precipitate in a test-tube, it is decomposed without fusion, and is wholly volatilized. Nitric acid, diluted with an equal amount of water, dissolves the Salt on warming. It should yield nothing soluble to water or alcohol.

It should be **very cautiously** preserved, and protected from the light.

INFUSA.

INFUSIONS. AUFGÜSSE.

Infusions, for which the amount of the respective substance is not specified, are prepared so that 10 parts of strained product are obtained from 1 part of Substance.

In the case of Substances for which a limit of dose is given, the quantity of Substance is to be specified by the physician.

In preparing an infusion, the Substance is put into a suitable vessel, boiling water poured upon it, and the mixture exposed, for 5 minutes, to the steam of boiling water, on a water-bath, stirring occasionally; when cold, the liquid is separated by straining.

INFUSUM SENNÆ COMPOSITUM.

COMPOUND INFUSION OF SENNA. WIENER TRANK.

[*Black Draught; Vienna Draught.*]

Senna, cut, *five parts*	5
Boiling Water, *thirty parts*	30

Heat them by means of a steam-bath for 5 minutes; when cold strain, and dissolve in the infusion

Tartrate of Potassium and Sodium, *five parts*	5
Common Manna, *ten parts*	10

The amount of liquid obtained, after settling and straining, should amount to 40 parts.

JODOFORMIUM.

IODOFORM. JODOFORM.

[*Iodoformum, U. S. Ph.*]

Small, shining, lemon-yellow scales or plates, of hexagonal form and greasy feel, having a penetrating, somewhat saffron-like odor, melting near 120° C., and volatilizing with the vapors of boiling water. Iodoform is almost insoluble in water; soluble in 50 parts of cold, and in about 10 parts of boiling alcohol, and in 5.2 parts of ether.

When heated it should volatilize, and when shaken with water and

filtered, the filtrate should not be affected by nitrate of silver or nitrate of barium.

Iodoform should be cautiously preserved.

Largest single dose ..... **0.2 Gm.**
Largest daily dose ..... **1.0 Gm.**

JODUM.

IODINE. JOD.

[*Iodum, U. S. Ph.*]

Grayish-black, dry, rhombic, crystalline plates or scales, of a metallic lustre and a peculiar odor, giving off violet fumes when heated, and coloring solution of starch blue. It is soluble in about 5,000 parts of water, and in 10 parts of alcohol, yielding a brown solution. It is readily soluble in ether, or solution of iodide of potassium, with a brown color; and in chloroform and benzol, with a violet color. By heat it should be volatilized.

When 0.5 Gm. of Iodine is shaken with 20 C.c. of water, a part of the filtered liquid treated with test-solution of sulphite of sodium until decolorized; then a small fragment of ferrous sulphate added, together with a drop of solution of ferric chloride and a little solution of soda, and the whole gently warmed,—the liquid should not assume a blue color on the addition of hydrochloric acid in excess. If another portion of the decolorized solution be treated with water of ammonia in excess, then precipitated with nitrate of silver: the filtrate separated from the iodide of silver should not yield a precipitate nor be rendered more than cloudy when supersaturated with nitric acid.

When 0.2 Gm. of Iodine and 0.5 Gm. of iodide of potassium are dissolved in 50 C.c. of water, and mixed with solution of starch, it should require 15.5 to 15.7 C.c. of volumetric solution of hyposulphite of sodium to decolorize the liquid.

Iodine should be cautiously preserved.

Largest single dose ..... **0.05 Gm.**
Largest daily dose ..... **0.2 Gm.**

KALI CAUSTICUM FUSUM.

POTASSA. KALIUMHYDROXYD.

[*Potassa, U. S. Ph.; Caustic Potash; Potassic Hydrate.*]

(*Kali hydricum fusum; Lapis causticus chirurgorum; Aetzstein; Aetzkali.*)

Dry, white, tough pieces or cylindrical sticks, very caustic, deliquescent in the air, and breaking with a crystalline fracture. The aqueous

solution, supersaturated with tartaric acid, yields a white crystalline precipitate.

When 1 part is dissolved in 2 parts of water, and then mixed with 4 parts of alcohol, not more than a slight sediment should be deposited after standing for a short time. One part of the same solution boiled with 15 parts of lime water and filtered, should not produce an effervescence when poured into an excess of nitric acid.

When 2 volumes of a solution of Potassa (1=20), prepared with diluted sulphuric acid, are added to a layer of 1 volume of sulphuric acid and 2 volumes of test-solution of ferrous sulphate, no brown zone should be developed at the line of contact of the two liquids.

A solution of 1 Gm. of Potassa in 100 C.c. of water, supersaturated with nitric acid, should not be rendered cloudy within 2 minutes after being mixed with 4 drops of test-solution of nitrate of barium, or with 4 drops of volumetric solution of nitrate of silver.

Potassa should be cautiously preserved.

KALIUM ACETICUM.

Acetate of Potassium. Kaliumacetat.

[*Potassii Acetas, U. S. Ph.*]

(*Terra foliata Tartari; Essigsaures Kali.*)

A white, somewhat lustrous, very deliquescent salt, having a feebly alkaline reaction; soluble in 0.36 part of water, and 1.4 part of alcohol.

The aqueous solution of the Salt is colored deep red by ferric chloride; and, with an excess of tartaric acid, it yields a white crystalline precipitate.

The aqueous solution (1=20) should not be affected by hydrosulphuric acid or solution of sulphide of ammonium, nor by nitrate of barium after the addition of diluted nitric acid; neither should it yield more than a faint opalescence with nitrate of silver.

KALIUM BICARBONICUM.

Bicarbonate of Potassium. Kaliumbicarbonat.

[*Potassii Bicarbonas, U. S. Ph.; Hydropotassic Carbonate; Acid Carbonate of Potassium.*]

(*Doppeltkohlensaures Kali; Saures kohlensaures Kali.*)

Colorless, transparent crystals, slowly dissolving in 4 parts of water; insoluble in alcohol; having an alkaline reaction and effervescing with

acids. The aqueous solution yields, with an excess of tartaric acid, a white crystalline precipitate.

The aqueous solution (1=20), supersaturated with acetic acid, should not be affected by nitrate of barium, or hydrosulphuric acid, nor, after the addition of nitric acid, be rendered more than opalescent by nitrate of silver. When 5 Gm. of Bicarbonate of Potassium are left in contact with 5 C.c. of cold water for 10 minutes, the decanted solution, diluted with 45 C.c. of water, should yield no brownish-red precipitate on the addition of 2 drops of test-solution of bichloride of mercury.

KALIUM BICHROMICUM.

Bichromate of Potassium. Kaliumbichromat.

[*Potassii Bichromas, U. S. Ph.; Potassic Dichromate.*]

(*Kali bichromicum; Doppeltchromsaures Kali.*)

Large, orange-red crystals; soluble in 10 parts of water; fusing, when heated, to a reddish-brown liquid.

The aqueous solution (1=20) has an acid reaction, and when heated with an equal volume of alcohol, and treated with hydrochloric acid, assumes a green color.

The Salt should be cautiously preserved.

KALIUM BROMATUM.

Bromide of Potassium. Kaliumbromid.

[*Potassii Bromidum, U. S. Ph.; Potassic Bromide.*]

(*Kali hydrobromicum; Bromkalium.*)

White, cubical, shining crystals, permanent in the air; soluble in 2 parts of water, and in 200 parts of alcohol. When the aqueous solution is mixed with a little chlorine water, then shaken with ether or chloroform, the latter liquids will acquire a reddish-yellow color. When treated with an excess of tartaric acid, and allowed to stand for some time, the aqueous solution yields a white, crystalline precipitate. When heated in the loop of a platinum wire, the Salt should, from the beginning, impart a violet color to the flame. If the powdered Salt be spread on a porcelain tile, it should not at once acquire a yellow color when touched by a drop of diluted sulphuric acid. A fragment laid upon moistened red litmus paper should not instantly produce a violet-blue stain. Chloroform should not be colored violet when added to a solu-

tion of 1 Gm. of the Salt in 10 C.c. of water, mixed with a few drops of solution of ferric chloride. Twenty Gm. of the aqueous solution (1=20) should not become cloudy on the addition of 4 drops of test-solution of nitrate of barium.

If 10 C.c. of an aqueous solution, containing 3 Gm. of the well-dried Salt in 100 C.c., are treated with a few drops of test-solution of chromate of potassium, not more than 25.6 C.c. of the volumetric solution of nitrate of silver should be consumed until the red color remains permanent.

KALIUM CARBONICUM.

PURE CARBONATE OF POTASSIUM. KALIUMCARBONAT.

[*Potassii Carbonas, U. S. Ph.*]

(*Kalium carbonicum purum; Kali carbonicum e tartaro; Sal tartari; Reines kohlensaures Kali.*)

A white powder, soluble in its own weight of water, yielding a clear solution of an alkaline reaction. It should contain not less than 95 per cent. of absolute Carbonate of Potassium. The aqueous solution, when supersaturated with tartaric acid, yields, with effervescence, a white crystalline precipitate. When heated in the loop of a platinum wire, the Salt should impart to the flame a characteristic violet, but no persistent yellow color.

The aqueous solution of the Salt (1=20) should not be affected by solution of sulphide of ammonium, or by carbonate of ammonium; and with an excess of nitrate of silver, it should afford a purely white precipitate, which, when gently warmed, should not become dark-colored. The solution mixed with a little test-solution of ferrous sulphate and ferric chloride, and then gently warmed, should not acquire a blue color when supersaturated with hydrochloric acid. When 2 volumes of a solution of the Salt prepared with diluted sulphuric acid are added to a layer of 1 volume of sulphuric acid and 2 volumes of solution of ferrous sulphate, no brown zone should be developed at the line of contact of the two liquids.

The aqueous solution (1=20), supersaturated with acetic acid, should not be affected by hydrosulphuric acid, or nitrate of barium, nor, after the addition of diluted nitric acid, should it be rendered more than opalescent by nitrate of silver, within 2 minutes.

To neutralize 2 Gm. of the Salt should require 27.4 C.c. of volumetric hydrochloric acid.

KALIUM CARBONICUM CRUDUM.

CARBONATE OF POTASSIUM.[1] POTTASCHE.

(*Kali carbonicum e cineribus clavellatis; Gereinigtes kohlensaures Kali.*)

A white, dry, granular powder, dissolving almost wholly in an equal weight of water, and having an alkaline reaction. It should contain not less than 90 per cent. of absolute Carbonate of Potassium. The aqueous solution (1=20), when supersaturated with tartaric acid, yields, with effervescence, a white crystalline precipitate.

To neutralize 2 Gm. of the Salt should require 26 C.c. of volumetric hydrochloric acid.

KALIUM CHLORICUM.

CHLORATE OF POTASSIUM. KALIUMCHLORAT.

[*Potassii Chloras, U. S. Ph.*]

(*Kali chloricum; Kali muriaticum oxygenatum; Chlorsaures Kali.*)

Colorless, shining, lamellar or tabular crystals, permanent in the air, soluble in 16 parts of cold water, in 3 parts of boiling water, and in 130 parts of alcohol. The aqueous solution, when heated with hydrochloric acid, is colored greenish-yellow, and gives off an abundance of chlorine. With an excess of tartaric acid, it yields a white, crystalline precipitate.

The aqueous solution (1=20) should not be affected by hydrosulphuric acid, oxalate of ammonium, or nitrate of silver. When the Salt is ignited in a covered crucible, it should leave a white residue soluble in water and having no alkaline reaction.

KALIUM JODATUM.

IODIDE OF POTASSIUM. KALIUMJODID.

[*Potassii Iodidum, U. S. Ph.*]

(*Kali hydrojodicum; Jodkalium.*)

White, cubical crystals, not deliquescent in the air, having a sharp, saline, and afterward bitter taste; soluble in 0.75 part of water, and in 12 parts of alcohol. The aqueous solution, when treated with a little chlorine water, and shaken with chloroform, colors the latter violet.

[1] This Salt is often called Salt of Tartar in this country and England.

When treated with an excess of tartaric acid, and allowed to stand for some time, it yields a white crystalline precipitate.

When heated in the loop of a platinum wire, the Salt should, from the beginning, impart a violet color to the flame. A few fragments of the Salt laid upon moistened red litmus paper should not at once produce violet-blue stains. The aqueous solution (1=20) should not be affected by hydrosulphuric acid; and, when mixed with diluted sulphuric acid, it should not turn blue, at once, on the addition of solution of starch.

If a solution of the Salt mixed with starch-solution be added to a briskly effervescing mixture of metallic zinc and hydrochloric acid, no blue color should make its appearance.

When 20 C.c. of the aqueous solution (1=20) are mixed with 10 drops of test-solution of nitrate of barium, no cloudiness should be produced within 5 minutes. The aqueous solution, mixed with a fragment of ferrous sulphate, a drop of solution of ferric chloride, and some solution of soda, and gently warmed, should not acquire a blue color on being supersaturated with hydrochloric acid.

If 0.2 Gm. of Iodide of Potassium is dissolved in 2 C.c. of water of ammonia, and precipitated by shaking with 13 C.c. of volumetric solution of nitrate of silver, the filtrate, after being supersaturated with nitric acid, should not become opaque within 10 minutes.

Iodide of Potassium should be cautiously preserved.

KALIUM NITRICUM.

NITRATE OF POTASSIUM. KALIUMNITRAT.

[*Potassii Nitras, U. S. Ph.; Saltpeter; Nitre.*]

(*Kali nitricum*; *Nitrum depuratum*; *Kalisalpeter*; *Salpetersaures Kali.*)

Colorless, transparent, prismatic crystals, or a crystalline powder; permanent in the air, soluble in 4 parts of cold water and in less than half its weight of boiling water; almost insoluble in alcohol.

The aqueous solution yields, with an excess of tartaric acid, a white, crystalline precipitate; it is colored brownish-black when mixed with sulphuric acid and test-solution of ferrous sulphate in excess.

The aqueous solution (1=20) should have a neutral reaction, and remain unaffected by hydrosulphuric acid, nitrate of barium, or nitrate of silver.

KALIUM PERMANGANICUM.

PERMANGANATE OF POTASSIUM. KALIUMPERMANGANAT.

[*Potassii Permanganas, U. S. Ph.*]

(*Übermangansaures Kali.*)

Dark-violet, or nearly black, prismatic crystals of a steel-gray lustre, and soluble in 20.5 parts of water, yielding a bluish-red solution. The aqueous solution (1=1,000) has no action on litmus paper, and is decolorized by ferrous salts, sulphurous or oxalic acid, alcohol, and other reducing substances. Many easily combustible substances, when rubbed with the dry Salt, ignite with explosion.

On heating 0.5 Gm. of the Salt, with 2 Gm. of alcohol, and 25 Gm. of water, to boiling, the filtrate should be colorless and should not be rendered more than opalescent by nitrate of barium, or nitrate of silver; nor should it be colored blue, if mixed first with diluted sulphuric acid and metallic zinc, and afterward with volumetric solution of starch.

KALIUM SULFURATUM.

SULPHURATED POTASSA. SCHWEFELLEBER.

[*Potassa Sulphurata, U. S. Ph.; Liver of Sulphur.*]

(*Hepar Sulphuris ad usum internum; Kaliumsulfid; Kalischwefelleber.*)

Sulphur, *one part*	1
Carbonate of Potassium, *two parts*	2

Mix them intimately and heat the mixture in a capacious, covered iron or stone-ware vessel, over a moderate fire, stirring occasionally, until the mass ceases to foam, and a small portion is found, on trial, soluble in water without the separation of sulphur. Then pour the mass into an iron mortar, or upon an iron plate, and, when cold, break it into pieces.

Liver-brown pieces, becoming gradually yellowish-green, having a faint odor of hydrosulphuric acid, deliquescing in moist air, and soluble in double their weight of water, leaving but a slight residue, and yielding an alkaline, yellowish-green, opalescent solution.

The aqueous solution (1=20), when treated with an excess of acetic acid, evolves an abundance of hydrosulphuric acid and separates sulphur; the cold filtrate, when treated with an excess of tartaric acid, yields a white crystalline precipitate.

KALIUM SULFURICUM.

SULPHATE OF POTASSIUM. KALIUMSULFAT.

[*Potassii Sulphas, U. S. Ph.*]

(*Tartarus vitriolatus depuratus; Arcanum duplicatum depuratum; Kali sulfuricum; Schwefelsaures Kali.*)

White, hard crystals or crystalline crusts, dissolving in 10 parts of cold, and in 4 parts of boiling water; insoluble in alcohol. The aqueous solution, when treated with an excess of tartaric acid, after some time yields a white crystalline precipitate, and with nitrate of barium, it immediately yields a white precipitate insoluble in acids.

The aqueous solution (1=20) should have a neutral reaction and not be affected by solution of sulphide of ammonium, oxalate of ammonium, or nitrate of silver. When 2 volumes of the solution are mixed with 1 volume of sulphuric acid, and a layer of 2 volumes of test-solution of ferrous sulphate be cautiously poured on top, no intermediate brown zone should be produced. When heated in the loop of a platinum wire, the Salt should not impart to the flame a persistent yellow color.

KALIUM TARTARICUM.

TARTRATE OF POTASSIUM. KALIUMTARTRAT.

[*Potassii Tartras, U. S. Ph.*]

(*Kali tartaricum; Tartarus tartarisatus; Weinsaures Kali.*)

Colorless, transparent crystals, permanent in the air; soluble in 1.4 part of water, yielding a neutral liquid; almost insoluble in alcohol. When heated the Salt chars, evolves vapors having the odor of burnt sugar, and leaves a residue of an alkaline reaction, which colors the flame violet. The concentrated aqueous solution of the Salt, mixed with acetic acid, yields a white, crystalline precipitate insoluble in an excess of the precipitant, but soluble in hydrochloric acid, or in solution of soda.

The aqueous solution (1=20) should not be affected by solution of sulphide of ammonium, or oxalate of ammonium, nor, after the addition of hydrochloric acid, by hydrosulphuric acid or nitrate of barium. When the solution is acidulated with nitric acid, it should not be rendered more than opalescent by nitrate of silver. When warmed with solution of soda, the Salt should not evolve vapor of ammonia.

KAMALA.

KAMALA. KAMALA.

[*Rottlera.*]

(*Glandulæ Rottleræ.*)

The powdery covering rubbed off the fruit of *Mallotus philippinensis.*

A light powder, of a red and partly gray color; not sticky; without odor and taste; imparting a pale-yellow color to boiling water; the latter when filtered turns brown on the addition of ferric chloride. Ether, chloroform, alcohol, and aqueous solutions of alkalies, extract from Kamala a large amount of dark-red resin.

Kamala consists of irregular, globular glands, containing 40 to 60 microscopic, radially arranged, club-shaped cells. The glands are accompanied by colorless, thick-walled, fascicled hairs. Kamala should be free from fragments of leaves and stems. On ignition, it should not leave more than 6 per cent. of ash.

KREOSOTUM.

CREASOTE. KREOSOT.

[*Creasotum, U. S. Ph.*]

(*Buchentheerkreosot.*)

A neutral, clear, strongly refractive, oily liquid, of a faintly yellow color, scarcely turning brownish, even when exposed to sunlight. It has a penetrating, smoky odor, and a burning taste. Specific gravity between 1.03 and 1.08. When heated, the greater part distils over between 205 and 220° C.; it does not solidify, even when exposed to a temperature of −20° C. It forms clear mixtures with ether, alcohol, and bisulphide of carbon; but requires not less than 120 parts of hot water to form a clear solution, which becomes turbid on cooling, but gradually clears again and deposits oily drops. This liquid, separated from the oily drops, yields, with bromine, a reddish-brown, resinous precipitate; on the addition of a very small quantity of ferric chloride, it becomes turbid, acquires a greenish-gray or transiently blue color, and finally turns to a dirty-brown, while depositing similarly colored flakes.

With an equal part of solution of soda, Creasote forms a clear mixture which should not acquire a dark color, and which, when diluted with a large proportion of water, should not deposit a tar of a disagreeable odor. When Creasote is shaken with an equal volume of collodion, the mixture should not become gelatinous. If 2 volumes of Creasote are shaken with 20 volumes of water of ammonia, the Creasote should not be reduced in volume to less than 1.5 volume.

In 3 volumes of a mixture of 3 parts of glycerin and 1 part of water, 1 volume of Creasote should be almost insoluble.

Creasote should be **cautiously** preserved.

Largest single dose ..... **0.1 Gm.**
Largest daily dose ..... **0.5 Gm.**

LACTUCARIUM.

LACTUCARIUM. GIFTLATTIGSAFT.

(*Lactucarium Germanicum.*)

The inspissated, milky juice of *Lactuca virosa.* Either in larger, somewhat globular pieces, or in smaller, irregular fragments ; externally yellowish-brown, and internally whitish. Lactucarium can be broken or powdered only with difficulty, and forms an emulsion with water only with the aid of gum arabic. Boiling water softens Lactucarium ; the warm filtrate is clear and very bitter, but becomes turbid on cooling ; and it is not colored when shaken with powdered iodine. The turbid filtrate is rendered clear by water of ammonia, as well as by alcohol. The ammoniacal solution yields an abundant precipitate with test-solution of sulphate of calcium ; and the alcoholic solution is not altered by ferric chloride. Lactucarium has a peculiar narcotic odor. On ignition, it should leave not more than 10 per cent. of ash.

Lactucarium should be **cautiously** preserved.

Largest single dose ..... **0.3 Gm.**
Largest daily dose ..... **1.0 Gm.**

LAMINARIA.

LAMINARIA. LAMINARIASTIELE.

[*Sea-Tangle.*]

The stipes of the foliaceous thallus of *Laminaria Cloustoni.* Grayish-brown, longitudinally furrowed cylinders, several decimeters long, and up to 1 centimeter in thickness. Transverse sections of the dry, tough and horny stipe swell largely in water, and exhibit, under the dark-brown bark, a middle layer traversed by rather large gum-cavities. The interior, medullary tissue should not be hollow.

LICHEN ISLANDICUS.

ICELAND MOSS. ISLÄNDISCHES MOOS.

[*Cetraria, U. S. P.*]

The entire thallus of *Cetraria islandica.* The foliaceous thallus, at most 0.5 millimeter thick, and of the size of a hand, is divided into

coarsely fringed lobes, varying in width, which are often channelled, twisted, or curled ; one side being brownish-green with red spots, the other side paler, of a whitish or gray color, marked with depressed, white spots. A decoction of Iceland Moss, made with 20 parts of water, gelatinizes, on cooling, to a stiff jelly of a bitter taste. If this be diluted with an equal quantity of water, and alcohol be added, it deposits thick flakes, which, when separated by filtration, and exposed until the alcohol has evaporated, assume a blue color, if brought in contact, while still moist, with powdered iodine.

LIGNUM GUAJACI.

GUAIACUM WOOD. GUAJAKHOLZ.

[*Guaiaci Lignum, U. S. Ph.; Lignum Vitæ.*]

(*Pockholz ; Franzosenholz ; Lignum sanctum.*)

The wood of *Guaiacum officinale ;* preferably the heart-wood, in the form of cuttings or turnings. It is heavier than water, flexuose-fibrous, and therefore splits irregularly, and is cut with difficulty. It has a brownish-yellow color, more greenish on the surface. Its aromatic odor becomes stronger on heating ; its taste is slightly acrid. Alcohol, shaken with Guaiacum Wood and evaporated, leaves a brownish-yellow residue which, when sprinkled with a solution of 1 part of ferric chloride in 100 parts of alcohol, assumes, in a short time, a beautiful blue color.

LIGNUM QUASSIÆ.

QUASSIA. QUASSIAHOLZ.

[*Quassia, U. S. Ph.*]

(*Lignum Quassiæ Surinamensis ; Quassia.*)

The wood and bark of *Quassia amara* and *Picræna excelsa*, in small pieces. The wood of both trees is whitish, splits readily, and exhibits upon the transverse section, when viewed with a lens, the annual layers and medullary rays. Taste purely bitter and persistent. The wood of *Quassia amara* is compact ; the bark is brittle, at most 2 millimeters thick, of a yellowish-brown, or gray color ; the inner side marked with bluish-black spots. The wood of *Picræna excelsa* is looser in texture, very slightly yellow ; the bark brownish-black, up to 1 centimeter thick, is readily cut, and breaks with a fibrous fracture. Its inner surface is finely striped longitudinally and has a grayish-brown color, and is also, very commonly, marked with bluish-black spots.

LIGNUM SASSAFRAS.

SASSAFRAS WOOD. SASSAFRASHOLZ.

[*Sassafras Root.*]

(*Fenchelholz.*)

The cut wood of the root of *Sassafras officinalis*, with or without the dark reddish-brown bark. The wood is light, somewhat spongy, readily split, and varies from a brownish to a pale-reddish color. The wood and bark have a very aromatic taste, with a sweetish after-taste. The wood of the trunk, which is only feebly aromatic, should be rejected.

LINIMENTUM AMMONIATO-CAMPHORATUM.

AMMONIATED CAMPHOR LINIMENT. FLÜCHTIGES CAMPHERLINIMENT.

(*Linimentum volatile camphoratum.*)

Camphorated Oil, *three parts*	3
Poppy Oil, *one part*	1
Water of Ammonia, *one part*	1

Mix them to a uniform liniment by shaking.

It should be white, viscid and should not separate into two layers even when standing for a considerable time.

LINIMENTUM AMMONIATUM.

AMMONIA LINIMENT. FLÜCHTIGES LINIMENT.

[*Linimentum Ammoniæ, U. S. Ph.; Volatile Liniment.*]

(*Linimentum Volatile.*)

Olive Oil, *three parts*	3
Poppy Oil, *one part*	1
Water of Ammonia, *one part*	1

Mix them to a uniform liniment by shaking.

It should be white, viscid and should not separate into two layers, even when standing for a considerable time.

LINIMENTUM SAPONATO-CAMPHORATUM.

CAMPHORATED SOAP LINIMENT. OPODELDOK.

[*Opodeldoc.*]

Medicinal Soap, *sixty parts* 60
Camphor, *twenty parts* 20
Dissolve them, with a gentle heat, in
Alcohol, *eight hundred and ten parts* 810
and
Glycerin, *fifty parts* 50
Having filtered the warm solution, by means of a covered funnel, into the bottle in which the finished Liniment is to be kept, add
Oil of Thyme, *four parts* 4
Oil of Rosemary, *six parts* 6
Water of Ammonia, *fifty parts* 50
and cool the whole mixture rapidly.

The Liniment should be nearly colorless, slightly opalescent, and should be readily liquefied by the warmth of the hand.

LINIMENTUM SAPONATO-CAMPHORATUM LIQUIDUM.

SOAP LINIMENT. FLÜSSIGER OPODELDOK.

[*Liquid Opodeldoc.*]

Spirit of Camphor, *one hundred and twenty parts* 120
Spirit of Soap, *three hundred and fifty parts* 350
Water of Ammonia, *twenty-four parts* 24
Oil of Thyme, *two parts* 2
Oil of Rosemary, *four parts* 4

Mix and filter.
A clear, yellowish liquid.

LINIMENTUM TEREBINTHINATUM.

TURPENTINE LINIMENT. TERPENTHINLINIMENT.

Mix intimately
Carbonate of Potassium, *six parts* 6
with
Soft Soap, *fifty-four parts* 54
then add
Oil of Turpentine, *forty parts* 40

It should be a greenish-brown liniment.

LIQUOR ALUMINII ACETICI.

SOLUTION OF ACETATE OF ALUMINIUM. ALUMINIUMACETATLÖSUNG.

Sulphate of Aluminium, *three hundred parts*	300
Acetic Acid, *three hundred and sixty parts*	360
Precipitated Carbonate of Calcium, *one hundred and thirty parts*	130
Water, *one thousand parts*	1000

Dissolve the Sulphate of Aluminium in 800 parts of Water, add the Acetic Acid, and, having triturated the Precipitated Carbonate of Calcium with 200 parts of water, add it gradually to this solution stirring constantly. Let the mixture stand for 24 hours, at the ordinary temperature, stirring frequently. Then strain the liquid from the sediment, press the latter without washing it, and filter the liquid.

A clear, colorless liquid of a specific gravity between 1.044 and 1.046, having a faint odor of acetic acid, an acid reaction, and a sweetish, astringent taste. Solution of Acetate of Aluminium coagulates, when heated on a water-bath, on the addition of one-fiftieth part of sulphate of calcium, but, after cooling, becomes again liquid and clear in a short time.

The Solution should not become colored on the addition of hydrosulphuric acid ; and, when mixed with twice its volume of alcohol, it should not immediately become more than opalescent, but should yield no precipitate. Ten Gm. mixed with double the amount of water and a few drops of solution of phenolphtalein, should require not less than 9.2 to 9.8 C.c. of volumetric solution of potassa, to produce a red color. When 10 Gm. of the preparation are precipitated with water of ammonia, they should yield 0.25 to 0.30 Gm. of alumina, corresponding to from 7.5 to 8.0 per cent. of basic acetate of aluminium.

LIQUOR AMMONII ACETICI.

SOLUTION OF ACETATE OF AMMONIUM. AMMONIUMACETATLÖSUNG.

[*Liquor Ammonii Acetatis, U. S. Ph.; Spirit of Mindererus.*]

(*Spiritus Mindereri ; Essigsaure Ammoniumflüssigkeit.*)

Water of Ammonia, *ten parts*	10
Acetic Acid, *twelve parts*	12

Mix, and heat them in a porcelain vessel, allowing the mixture to boil for a few minutes. When entirely cold, neutralize the liquid with water of ammonia, filter and add a sufficient amount of water, so that the specific gravity shall be between 1.032 and 1.034.

A clear, colorless liquid of a neutral or slightly acid reaction. It is wholly volatilized by heat, and contains 15 per cent. of Acetate of Ammonium.

It should not be affected by hydrosulphuric acid or nitrate of barium; and, when acidulated with nitric acid, should not be rendered turbid by nitrate of silver.

LIQUOR AMMONII ANISATUS.

ANISATED SPIRIT OF AMMONIA. ANISÖLHALTIGE AMMONIAFLÜSSIGKEIT.

(*Ammoniacum solutum anisatum; Spiritus salis ammoniaci anisatus; Anishaltiger Ammoniakliquor.*)

Oil of Anise, *one part*	1
Alcohol, *twenty-four parts*	24

Mix, and dissolve; then add

Water of Ammonia, *five parts*	5

It should be a clear, yellowish liquid.

LIQUOR AMMONII CAUSTICI.

WATER OF AMMONIA. AMMONIAK.

[*Aqua Ammoniæ, U. S. Ph.; Liquor Ammoniæ; Solution of Ammonia.*]

(*Aetzammoniak; Spiritus salis ammoniaci causticus.*)

A clear, colorless, volatile liquid, having a peculiar, pungent odor, and a strongly alkaline reaction. When brought near hydrochloric acid, it causes the evolution of dense, white fumes. It contains 10 per cent., by weight, of gaseous ammonia, and has the specific gravity 0.960.

When mixed with 4 times its volume of lime-water, it should not become turbid; and, when diluted with twice its volume of water, it should not be affected by solution of sulphide of ammonium, or by oxalate of ammonium. Water of Ammonia, when supersaturated with acetic acid, should not be rendered turbid by hydrosulphuric acid, or nitrate of barium; nor, after the addition of nitric acid, by nitrate of silver. When supersaturated by nitric acid, and evaporated to dryness, it should leave a colorless residue, which is volatilized at a higher temperature.

To neutralize 4 Gm. of Water of Ammonia should require 23.5 C.c. of volumetric hydrochloric acid.

LIQUOR CORROSIVUS.

CORROSIVE LIQUID. AETZFLÜSSIGKEIT.

Sulphate of Copper, *six parts* 6
Sulphate of Zinc, *six parts* 6
Dissolve them in
Vinegar, *seventy parts* 70
and then add
Solution of Subacetate of Lead, *twelve parts* 12

This should be prepared only when wanted for dispensing.

LIQUOR FERRI ACETICI.

SOLUTION OF ACETATE OF IRON. FERRIACETATLÖSUNG.

[*Liquor Ferri Acetatis, U. S. Ph.; Solution of Ferric Acetate.*]

(*Essigsaure Eisenflüssigkeit.*)

Dilute
Solution of Chloride of Iron, *ten parts* 10
with
Water, *fifty parts* 50
Then add, stirring constantly, a previously prepared mixture of
Water of Ammonia, *ten parts* 10
and
Water, *two hundred parts* 200
taking care that the liquid be kept alkaline. Wash the resulting precipitate completely with water, press it very forcibly, and, having introduced it into a flask, containing
Acetic Acid, *eight parts* 8
keep it in a cool place, shaking frequently, until the precipitate is entirely dissolved, or but a trifling residue remains. Then add a sufficient amount of water, so that the specific gravity of the liquid shall be between 1.081 and 1.083.

A reddish-brown liquid of a slight, acetous odor, yielding a reddish-brown precipitate when heated; when diluted with sufficient water, to form a yellowish liquid, and then treated with a small amount of hydrochloric acid, the liquid should assume a blood-red color on the addition of test-solution of sulphocyanide of potassium.

When 1 part of Solution of Acetate of Iron is diluted with 5 parts of water and treated with a little hydrochloric acid, it should not

turn blue on the addition of ferricyanide of potassium. When completely precipitated by water of ammonia, a portion of the clear, colorless, alkaline filtrate should not be rendered turbid by hydrosulphuric acid ; nor, after being acidulated with nitric acid, either by nitrate of barium, or by nitrate of silver. Another portion of the filtrate should not leave a residue on evaporation and gentle ignition.

When 5 Gm. are mixed with 10 C.c. of volumetric solution of potassa, the filtrate should not be affected by test-solution of sulphide of ammonium.

When 2 Gm. are mixed with 1 Gm. of hydrochloric acid, 20 C.c. of water and 1 Gm. of iodide of potassium, and warmed for an hour in a closed bottle, it should require not less than 17 or 18 C.c. of volumetric solution of hyposulphite of sodium to combine with the liberated iodine, corresponding to the presence of 4.8 or 5.0 per cent. of iron in the Solution.

LIQUOR FERRI OXYCHLORATI.

Solution of Oxychloride of Iron. Flüssiges Eisenoxychlorid.

Solution of Chloride of Iron, *thirty-five parts* 35
Water, *one hundred and sixty parts* 160

Mix, and pour the liquid, while stirring, into a previously prepared mixture of

Water of Ammonia, *thirty-five parts* 35

and

Water, *three hundred and twenty parts* 320

Wash the resulting precipitate with water, and having pressed it, mix it with

Hydrochloric Acid, *three parts* 3

Set the mixture aside for three days ; then warm it gently until the oxide is completely dissolved ; and finally add enough water to bring the specific gravity of the product to 1.050.

A reddish-brown, clear, inodorous liquid, having but a slightly astringent taste, and containing nearly 3.5 per cent. of iron.

A mixture of 1 C.c. of the solution, 19 C.c. of water, 1 drop of nitric acid and 2 drops of volumetric solution of nitrate of silver should appear clear by transmitted light.

When *Liquor Ferri oxydati dialysati* is prescribed, *Liquor Ferri oxychlorati* may be dispensed.

LIQUOR FERRI SESQUICHLORATI.

SOLUTION OF CHLORIDE OF IRON. EISENCHLORIDLÖSUNG.

[*Liquor Ferri Chloridi, U. S. Ph.; Solution of Ferric Chloride; Solution of Sesquichloride of Iron; Solution of Perchloride of Iron.*]

(*Ferrum sesquichloratum solutum; Liquor Ferri muriatici oxydati; Liquor stypticus Lofii.*)

Introduce wrought iron, in the form of wire or nails, into a capacious retort, together with 4 times its weight of hydrochloric acid. Heat the whole gently, avoiding loss of acid, until all action has ceased; then pass the warm solution through a tared filter, wash the residue, on the filter, with a little water, dry and weigh it.[1]

For every 100 parts of Iron dissolved add to the solution

Hydrochloric Acid, *two hundred and sixty parts* 260

and

Nitric Acid, *one hundred and twelve parts* 112

Heat the mixture in a flask or glass retort, by means of a water-bath, until it has acquired a reddish-brown color, and a solution of ferricyanide of potassium no longer produces a blue color in a drop of the liquid diluted with water. Then evaporate the liquid in a tared porcelain capsule, on a water-bath, until the residue amounts to 483 parts for every 100 parts of dissolved iron. Finally, dilute the liquid with water before it has become cold, so that it shall have ten times the weight of the iron dissolved therein.

A clear, deep yellowish-brown liquid, having a specific gravity between 1.280 and 1.283, and containing 10 per cent. of iron. When diluted with water, it yields a white precipitate with nitrate of silver, and a deep blue one with ferrocyanide of potassium.

On bringing a glass rod dipped in water of ammonia near the Solution, white fumes should not be generated; nor should paper moistened with volumetric solution of starch, when brought near the Solution, be colored blue. When 3 drops of the Solution are slowly heated to boiling with 10 C.c. of volumetric solution of hyposulphite of sodium, the liquid, upon cooling, should deposit some flakes of oxide of iron.

The Solution diluted with 10 parts of water, and acidulated with hydrochloric acid, should not acquire a blue color on the addition of ferricyanide of potassium. When 5 Gm., diluted with 20 parts of water,

[1] This deducted from the Iron employed shows the amount dissolved.

are mixed with excess of water of ammonia, with thorough agitation, the mixture should yield a colorless filtrate which, on evaporation and gentle ignition, should leave no residue. When 2 volumes of the same filtrate are mixed with 1 volume of sulphuric acid, and a layer of 2 volumes of test-solution of ferrous sulphate be carefully poured on top, no intermediate brown zone should appear. Another portion of the same filtrate, supersaturated with acetic acid, should not be rendered turbid by nitrate of barium, nor be affected by ferrocyanide of potassium.

LIQUOR FERRI SULFURICI OXYDATI.

SOLUTION OF TERSULPHATE OF IRON. FERRISULFATLÖSUNG.

[*Liquor Ferri Tersulphatis, U. S. Ph.; Solution of Persulphate of Iron.*]

(*Flüssiges schwefelsaures Eisenoxyd.*)

Sulphate of Iron, *eighty parts*	80
Water, *forty parts*	40
Sulphuric Acid, *fifteen parts*	15
Nitric Acid, *eighteen parts*	18

Heat them in a glass retort or flask, on a water-bath, until the liquid has assumed a brown color, has become clear, and a drop diluted with water is no longer colored blue by ferricyanide of potassium. Then evaporate the Solution in a tared porcelain capsule to 100 parts; and, having dissolved it in a little water, evaporate the Solution again. Repeat the operation until the hot liquid is free from the odor of nitric acid; and, finally, make the product weigh 160 parts.

A clear, somewhat viscid, brownish-yellow liquid, having a specific gravity between 1.428 and 1.430, and containing 10 per cent. of iron. When diluted with 10 parts of water, it yields an abundant, white precipitate with nitrate of barium, and a deep blue one with ferrocyanide of potassium.

When 3 drops of the Solution are very slowly heated to boiling with 10 C.c. of volumetric solution of hyposulphite of sodium, the liquid, upon cooling, should deposit a few flakes of oxide of iron.

The Solution, diluted with 10 parts of water, should not be colored blue by ferricyanide of potassium, nor assume a white turbidity with nitrate of silver.

For additional tests, especially for detecting nitric acid, see under *Liquor Ferri Sesquichlorati.*

At least 500 Gm. of the Solution should always be kept ready for use.

LIQUOR KALI CAUSTICI.

SOLUTION OF POTASSA. KALILAUGE.

[*Liquor Potassæ, U. S. Ph.*]

(*Kali hydricum solutum ; Lixivium causticum ; Aetzkalilauge.*)

A clear, colorless, or faintly yellowish, very caustic liquid, having a specific gravity between 1.142 and 1.146, and containing nearly 15 per cent. of hydrate of potassium. When diluted with an equal volume of water, the Solution yields a white, crystalline precipitate with an excess of tartaric acid.

When boiled with 4 times its quantity of lime water, it should yield a filtrate which does not cause effervescence when dropped into nitric acid.

Solution of Potassa, diluted with 15 times its amount of water, and supersaturated with acetic acid, should not be rendered more than opalescent by nitrate of barium ; nor by nitrate of silver, after being supersaturated with nitric acid. When 2 volumes of the Solution are neutralized by diluted sulphuric acid, then mixed with 1 volume of sulphuric acid, and a layer of 2 volumes of test-solution of ferrous sulphate be carefully poured on top, no intermediate brown zone should appear.

Solution of Potassa should be **cautiously** preserved.

LIQUOR KALII ACETICI.

SOLUTION OF ACETATE OF POTASSIUM. KALIUMACETATLÖSUNG.

(*Kali aceticum liquidum, s. solutum ; Liquor terræ foliatæ tartari ; Essigsaure Kalilösung.*)

To

Acetic Acid, *one hundred parts* 100

add gradually

Bicarbonate of Potassium, *forty-eight parts* 48

and heat the solution to boiling. Neutralize the liquid with bicarbonate of potassium, and dilute it to

One hundred and forty-seven parts 147

A clear, colorless liquid, free from empyreumatic odor ; 3 parts containing 1 part of dry acetate of potassium. Specific gravity from 1.176 to 1.180.

When diluted with an equal part of water, the Solution should not be affected by hydrosulphuric acid, solution of sulphide of ammonium, or nitrate of barium ; and, when acidulated with nitric acid, it should not be rendered more than slightly opalescent by nitrate of silver.

LIQUOR KALII ARSENICOSI.

SOLUTION OF ARSENITE OF POTASSIUM. FOWLER'SCHE LÖSUNG.

[*Liquor Potassii Arsenitis, U. S. Ph.; Fowler's Solution.*]

(*Solutio arsenicalis Fowleri; Fowler'sche Arseniklösung.*)

Arsenious Acid, *one part*	1
Pure Carbonate of Potassium, *one part*	1

Boil them with

Water, *one part*	1

until complete solution has been effected; then add

Water, *forty parts*	40

and, when the Solution is cold, add

Compound Spirit of Balm, *fifteen parts*	15

and enough water to make the product weigh

One hundred parts	100

A clear, colorless, strongly alkaline liquid, which, when acidulated with hydrochloric acid, does not yield a yellow color or yellow precipitate; but, abundantly so, after the subsequent addition of solution of hydrosulphuric acid. The Solution contains 1 per cent. of arsenious acid.

When 5 Gm. of the Solution are diluted with 20 C.c. of water, and 1 Gm. of bicarbonate of sodium and a few drops of solution of starch added, the mixture should discharge the color of 10 C.c. of the volumetric solution of iodine; and the further addition of 0.1 C.c. of the iodine solution should produce a permanent blue color.

It should be very cautiously preserved.

Largest single dose	**0.5 Gm.**
Largest daily dose	**2.0 Gm.**

LIQUOR KALII CARBONICI.

SOLUTION OF CARBONATE OF POTASSIUM. KALIUMCARBONATLÖSUNG.

(*Kali carbonicum solutum.*)

Dissolve

Pure Carbonate of Potassium, *eleven parts*	11

in

Water, *twenty parts*	20

Filter the Solution, and, if necessary, add water, so that the specific gravity of the product shall be between 1.330 and 1.334.

Three parts of the Solution contain 1 part of dry Carbonate of Potassium.

A clear, colorless liquid.

LIQUOR NATRI CAUSTICI.

SOLUTION OF SODA. NATRONLAUGE.

[*Liquor Sodæ, U. S. Ph.*]

(*Natrum hydricum solutum; Aetznatronlauge.*)

A clear, colorless, or faintly yellowish, caustic liquid, having a specific gravity between 1.159 and 1.163, and containing nearly 15 per cent. of hydrate of sodium. When evaporated and heated in the loop of a platinum wire, it colors the flame intensely yellow.

When boiled with 4 times its quantity of lime water, the Solution should yield a filtrate which, when poured into an excess of nitric acid, produces no effervescence.

Solution of Soda, when supersaturated with hydrochloric acid, should not be affected by water of ammonia. When diluted with 5 times its quantity of water, and supersaturated with nitric acid, the Solution should not be rendered opalescent within 10 minutes, when treated with nitrate of barium, or nitrate of silver.

When 2 volumes of the above diluted Solution are supersaturated with diluted sulphuric acid, mixed with 1 volume of sulphuric acid, and a layer of 2 volumes of test-solution of ferrous sulphate be carefully poured on top, no intermediate brown zone should appear.

Solution of Soda should be **cautiously** preserved.

LIQUOR NATRII SILICICI.

SOLUTION OF SILICATE OF SODIUM. NATRONWASSERGLAS.

[*Liquor Sodii Silicatis, U. S. Ph.; Soda Water-glass.*]

A clear, colorless, or faintly yellowish liquid, having an alkaline reaction and a specific gravity between 1.300 and 1.400. It yields a gelatinous precipitate with acids. When supersaturated with hydrochloric acid, and evaporated to dryness, the residue should not become colored by hydrosulphuric acid.

Another portion of this residue, mixed with a little water and filtered to separate insoluble silica, yields a filtrate, one drop of which, evaporated and heated in the loop of a platinum wire, imparts an intense yellow color to the flame.

LIQUOR PLUMBI SUBACETICI.

SOLUTION OF SUBACETATE OF LEAD. BLEIESSIG.

[*Liquor Plumbi Subacetatis, U. S. Ph.*]

(*Acetum plumbicum; Acetum saturninum; Plumbum hydrico-aceticum solutum.*)

Acetate of Lead, *three parts*	3
Oxide of Lead, which has been previously deprived of carbonic acid and finely powdered, *one part*	1
Water, *ten parts*	10

Rub the Acetate of Lead with the Oxide of Lead, melt the mass, with the addition of *one-twentieth part* of the Water, on a water-bath, and continue the heat until the yellowish color of the mixture has changed to white or reddish-white. Now add the remainder of the Water, set the liquid aside, in a closed vessel, and allow it to settle; then filter.

A clear, colorless liquid, of a sweetish, astringent taste, and an alkaline reaction. Specific gravity 1.235 to 1.240. It yields a black precipitate with hydrosulphuric acid, and a white one, soluble in an excess of the reagent, with solution of soda. On mixing it with ferric chloride, chloride of lead is separated, and the mixture acquires a reddish color.

After the addition of acetic acid, Solution of Subacetate of Lead affords a purely white precipitate with ferrocyanide of potassium.

It should be **cautiously** preserved.

LITHARGYRUM.

OXIDE OF LEAD. BLEIGLÄTTE.

[*Plumbi Oxidum, U. S. Ph.; Litharge.*]

(*Plumbum oxydatum.*)

A yellowish or reddish-yellow powder, having the specific gravity 9.25; insoluble in water, but soluble in diluted nitric acid to a clear solution, which yields a black precipitate with hydrosulphuric acid, and a white one, soluble in solution of soda, with sulphuric acid.

On ignition, Oxide of Lead should not leave more than 2 per cent. in weight, corresponding to the presence of 10 per cent. of subcarbonate of lead. On dissolving Oxide of Lead in nitric acid, and precipitating the lead by sulphuric acid, the filtrate, supersaturated with water of ammonia, should not have more than a bluish tint, and should not yield more than traces of a yellowish-red precipitate. When 5 Gm. of the

Oxide are shaken with 5 Gm. of water, and then boiled for several minutes with 20 Gm. of acetic acid, the residue, separated from the liquid when cold, then well washed and dried, should not weigh more than 0.05 Gm.

It should be cautiously preserved.

LITHIUM CARBONICUM.

CARBONATE OF LITHIUM. LITHIUMCARBONAT.

[*Lithii Carbonas, U. S. Ph.*]

(*Kohlensaures Lithion.*)

A white powder which fuses by heat, and on cooling forms a crystalline mass. It dissolves in 150 parts of boiling or cold water, yielding an alkaline liquid. Insoluble in alcohol. The Salt is dissolved by nitric acid with effervescence, the solution imparting a carmine color to the flame. The aqueous solution (1=50), prepared with the aid of nitric acid, should not be affected by nitrate of barium, or nitrate of silver; nor, after being supersaturated with water of ammonia, by solution of sulphide of ammonium or oxalate of ammonium.

If 0.1 Gm. of the Salt is dissolved in a few drops of diluted sulphuric acid, and 4 Gm. of alcohol be added, a clear solution should be formed.

LYCOPODIUM.

LYCOPODIUM. BÄRLAPPSAMEN.

(*Streupulver; Semen Lycopodii.*)

The spores of *Lycopodium clavatum*. A pale-yellow and very mobile powder, without odor or taste. When shaken with water or chloroform, it floats afterward on the surface of these liquids, without yielding to them anything soluble; but, when boiled in water, it afterward sinks to the bottom. On ignition, Lycopodium should not leave more than 5 per cent. of ash. Viewed under the microscope, the granules appear to be of a nearly uniform size, having four sides, three of which are nearly flat, and one arched. It should not be mixed with more than a very small amount of fragments of leaves and stems.

MAGNESIA USTA.

MAGNESIA. GEBRANNTE MAGNESIA.

[*Magnesia, U. S. Ph.; Calcined Magnesia.*]

A light, white and fine powder, almost insoluble in water, soluble in diluted sulphuric acid, affording a solution, which, when treated with

chloride of ammonium and supersaturated with water of ammonia, yields a white, crystalline precipitate on the addition of phosphate of sodium.

Magnesia should dissolve to a clear solution in diluted hydrochloric acid. When boiled with water, it should yield a feebly alkaline filtrate, which, when evaporated to dryness, should not leave more than a trace of residue.

On boiling 0.2 Gm. of Magnesia with 5 C.c. of water, and pouring the mixture, when cold, into 5 C.c. of diluted sulphuric acid, a liquid should result in which only a few isolated gas-bubbles are visible after complete solution.

An aqueous solution of Magnesia (1=50), prepared with the aid of acetic acid, should not be affected by hydrosulphuric acid, nor, after the addition of chloride of ammonium, and excess of water of ammonia, by solution of sulphide of ammonium. Another portion of the same solution, acidulated with nitric acid, should not be rendered turbid by nitrate of barium; nor be rendered more than opalescent by nitrate of silver, after 2 minutes.

If 0.05 Gm. of Magnesia is heated to boiling with 1 C.c. of water and 5 or 6 drops of hydrochloric acid; then 7 C.c. solution of chloride of ammonium, 15 C.c. of water, 3 C.c. of water of ammonia, and 4 C.c. test-solution of oxalate of ammonium be added and the mixture shaken after each addition, no immediate turbidity should be produced. At least 150 Gm. of Magnesia must, at all times, be kept on hand, ready for use.

MAGNESIUM CARBONICUM.

CARBONATE OF MAGNESIUM. MAGNESIUMCARBONAT.

[*Magnesii Carbonas, U. S. Ph.*]

(*Magnesia hydrico-carbonica; Magnesia alba; Magnesia carbonica; Kohlensaure Magnesia; Weisse Magnesia.*)

Light, white, loosely cohering, very friable masses, or a bulky white powder; almost insoluble in water, to which, however, it imparts a slightly alkaline reaction. Carbonate of Magnesium dissolves in diluted sulphuric acid, with abundant evolution of carbonic acid gas, forming a liquid, which, when supersaturated with water of ammonia, yields a white, crystalline precipitate, upon the addition of chloride of ammonium and a little phosphate of sodium.

Carbonate of Magnesium should yield a colorless solution with diluted hydrochloric acid. When boiled with water, it should yield a filtrate

which, when evaporated to dryness, should leave not more than a trifling residue.

An aqueous solution of Carbonate of Magnesium (1=50), prepared with the aid of acetic acid, should not be affected by hydrosulphuric acid; nor, after the addition of chloride of ammonium and excess of water of ammonia, by solution of sulphide of ammonium. Another portion of the same solution should not be rendered more than opalescent by nitrate of barium; nor, when acidulated with nitric acid, by nitrate of silver, after 2 minutes.

If 0.2 Gm. of Carbonate of Magnesium is heated to boiling with 2 C.c. of water and 8 or 9 drops of hydrochloric acid; then 10 C.c. test-solution of chloride of ammonium, 20 C.c. of water, 5 C.c. of water of ammonia, and 6 C.c. of test-solution of oxalate of ammonium be added, and the mixture shaken after each addition, no immediate turbidity should be produced.

MAGNESIUM CITRICUM EFFERVESCENS.

GRANULATED CITRATE OF MAGNESIUM. BRAUSEMAGNESIA.

[*Magnesii Citras Granulatus, U. S. Ph.*]

(*Aufbrausende citronensaure Magnesia.*)

Carbonate of Magnesium, *twenty-five parts*	25
Citric Acid, *seventy-five parts*	75

Mix them with

Water, *ten parts*	10

and dry the mixture at 30° C. Reduce the mass to a fine powder, and mix it intimately with

Bicarbonate of Sodium, *eighty-five parts*	85
Citric Acid, *forty parts*	40

and

Sugar, *twenty parts*	20

Then, by gently rubbing it with a pestle, and sprinkling it with alcohol, reduce the whole to a coarsely granular, crumbling mass; and, having dried it at a gentle heat, pass it through a suitable sieve, so as to form a uniform, coarsely granular powder.

A white granular powder, dissolving slowly in water with copious evolution of carbonic acid gas, yielding a liquid of an agreeable, acidulous taste.

MAGNESIUM SULFURICUM.

SULPHATE OF MAGNESIUM. MAGNESIUMSULFAT.

[*Magnesii Sulphas, U. S. Ph.; Epsom Salt.*]

(*Magnesia sulfurica; Sal amarum; Sal Anglicum; Schwefelsaure Magnesia; Bittersalz.*)

Small, colorless, prismatic crystals, scarcely efflorescent in the air, having a bitter, saline taste; soluble in 0.8 part of cold, and in 0.15 part of boiling water; insoluble in alcohol.

The aqueous solution, treated with phosphate of sodium, in presence of chloride of ammonium and water of ammonia, yields a white, crystalline precipitate; with nitrate of barium it yields a white precipitate insoluble in acids.

The aqueous solution (1=20) should be neutral, and, when acidulated with acetic acid, should not be affected by hydrosulphuric acid; nor, after the addition of chloride of ammonium and excess of water of ammonia, by solution of sulphide of ammonium. The same solution should not be rendered more than opalescent by nitrate of silver after five minutes. The Salt should not impart a persistent yellow color to the flame.

MAGNESIUM SULFURICUM SICCUM.

DRIED SULPHATE OF MAGNESIUM. ENTWÄSSERTES MAGNESIUMSULFAT.

(*Entwässerte schwefelsaure Magnesia.*)

Heat Sulphate of Magnesium in a porcelain capsule on a water-bath, stirring occasionally, until the Salt has lost 35 to 37 per cent. of its weight; then pass it through a sieve.

A fine, white, bulky powder.

When Sulphate of Magnesium is ordered to be mixed with a powder, the Dried Sulphate of Magnesium should be dispensed.

MANGANUM SULFURICUM.

SULPHATE OF MANGANESE. MANGANSULFAT.

[*Mangani Sulphas, U. S. Ph.*]

Rose-red, rhombic crystals, efflorescent in the air; soluble in 0.8 part of water; insoluble in alcohol. The aqueous solution has a neutral reaction, and yields with nitrate of barium a white precipitate insoluble in hydrochloric acid; with solution of sulphide of ammonium it yields a reddish-white precipitate. A small crystal of the Salt added to a little

solution of soda, dried and fused, leaves a dark-green residue which dissolves with the same color in water.

The aqueous solution (1=20), heated with a few drops, each, of hydrochloric acid and chlorine water, should neither be colored red by sulphocyanide of potassium nor be affected by hydrosulphuric acid. When all the Manganese is precipitated from the aqueous solution by carbonate of ammonium, the filtrate, after evaporation and gentle ignition, should leave no residue. A mixture of equal parts of Sulphate of Manganese and acetate of sodium, dissolved in 10 times its weight of water, with the addition of a few drops of acetic acid, should not be rendered turbid by hydrosulphuric acid.

On gentle ignition, 1 Gm. of the Salt should not lose more than from 0.322 to 0.335 Gm. in weight.

MANNA.

MANNA. MANNA.

The spontaneously dried juice, obtained by incisions in the trunk of *Fraxinus Ornus*. The cannulated Manna [Manna in flakes], *Manna cannulata*, is in the form of roundish, three-edged or flattish, crystalline pieces, hollowed on one side, having a sweet taste, a light-yellowish color externally, and a white color internally. Lump or common Manna [Manna in sorts], *Manna communis*, consists of grains or pieces, having the physical characters of those just described, and agglutinated together by a soft, brownish mass, of an equally sweet, but at the same time slightly acrid taste.

When 5 parts of Manna are boiled with 100 parts of alcohol, the undissolved residue, which amounts to about 1 part, should not be viscid, but firm ; the resulting solution should not affect litmus, and it should speedily separate a copious amount of pure crystals of mannite.

Manna should not lose more that 10 per cent. of its weight when dried on a water-bath.

MEL DEPURATUM.

CLARIFIED HONEY. GEREINIGTER HONIG.

[*Mel Despumatum, U. S. Ph.*]

Clarified Honey should be transparent, and have the agreeable odor peculiar to honey. In layers of 20 millimeters in thickness, it has a yellowish, or, at most, slightly brownish color. Specific gravity 1.3.

When mixed with an equal part of water of ammonia, Clarified Honey should not change its color ; and it should not become turbid, when mixed with double its amount of alcohol. With 4 parts of water it

should yield a clear, neutral liquid, which should not be rendered more than opalescent by nitrate of silver, or nitrate of barium.

MEL ROSATUM.

HONEY OF ROSE. ROSENHONIG.

[*Mel Rosæ, U. S. Ph.*]

Rose Leaves, *one part*	1
Water, *six parts*	6

Macerate for 24 hours; then express, evaporate the liquid to the consistence of syrup, and, having added 5 times its amount of alcohol, filter, mix with

Clarified Honey, *ten parts*	10

and evaporate the whole to

Ten parts	10

Honey of Rose should be clear, and have a brownish color.

MINIUM.

RED LEAD. MENNIGE.

[*Red Oxide of Lead; Minium.*]

A red powder, insoluble in water, and having the specific gravity 9.0. When mixed with hydrochloric acid, Red Lead produces white, crystalline chloride of lead, with the evolution of chlorine.

When 5 Gm. of Red Lead are dissolved in a mixture of 10 Gm. of nitric acid, 10 Gm. of water and 1 Gm. of sugar, the undissolved residue should not exceed 0.05 Gm. in weight.

MIXTURA OLEOSO-BALSAMICA.

OLEO-BALSAMIC MIXTURE. HOFFMANN'SCHER LEBENSBALSAM.

[*Hoffmann's Balsam of Life.*]

(*Balsamum vitæ Hoffmanni.*)

Oil of Lavender, *one part*	1
Oil of Cloves, *one part*	1
Oil of Cinnamon, *one part*	1
Oil of Thyme, *one part*	1
Oil of Lemon, *one part*	1
Oil of Mace, *one part*	1
Oil of Orange Flowers, *one part*	1
Balsam of Peru, *three parts*	3
Alcohol, *two hundred and forty parts*	240

Mix them, set the mixture aside for several days in a cool place, shaking occasionally, and filter.

A clear, brownish-yellow liquid.

MIXTURA SULFURICA ACIDA.

MIXTURE OF SULPHURIC ACID AND ALCOHOL. HALLER'SCHES SAUER.

[*Haller's Acid Elixir.*]

(*Elixir acidum Halleri; Saures Elixir.*)

Sulphuric Acid, *five parts*	5
Alcohol, *fifteen parts*	15

Add the Acid gradually to the Alcohol, taking care that the temperature of the mixture does not exceed 50° C.

A clear, colorless liquid. Specific gravity from 0.993 to 0.997.

MORPHINUM HYDROCHLORICUM.

HYDROCHLORATE OF MORPHINE. MORPHINHYDROCHLORAT.

[*Morphinæ Hydrochloras, U. S. Ph.; Muriate of Morphine.*]

(*Salzsaures Morphin.*)

White, acicular crystals of a silky lustre, often united in tufts; or white, cubical masses, consisting of microscopic crystals; without action on litmus paper, and having a very bitter taste. The Salt is soluble in 25 parts of water, and in 50 parts of alcohol. It fuses when carefully heated, and, at the temperature of 100° C., loses 14.5 to 15.0 per cent. of water.

The aqueous solution of the Salt is rendered slightly cloudy by carbonate of potassium; water of ammonia produces a precipitate which is not dissolved to an appreciable amount by an excess of the precipitant, or by ether; but it is readily dissolved by solution of soda, as well as by lime water. When the Salt is rubbed with sulphuric acid, and then sprinkled with subnitrate of bismuth, the mixture acquires a dark-brown color. When moistened with nitric acid, it turns red.

When Acetate of Morphine, *Morphinum aceticum*, is prescribed, Hydrochlorate of Morphine (on account of its greater stability) may be[1] dispensed.

Hydrochlorate of Morphine should be cautiously preserved.

Largest single dose	**0.03 Gm.**
Largest daily dose	**0.1 Gm.**

[1] The text has: "shall be dispensed," which is, however, not supposed to forbid the dispensing of Acetate of Morphine, when expressly demanded.—*Translator.*

MORPHINUM SULFURICUM.

SULPHATE OF MORPHINE. MORPHINSULFAT.

[*Morphinæ Sulphas, U. S. Ph.*]

(*Schwefelsaures Morphin.*)

Colorless, acicular crystals of a neutral reaction ; soluble in 14.5 parts of water. When heated to 100° C., the crystals lose nearly 12 per cent. of water. The Salt should respond, in purity, to the requirements made for Hydrochlorate of Morphine.

Largest single dose..... 0.03 Gm.
Largest daily dose ..... 0.1 Gm.

MOSCHUS.

MUSK. MOSCHUS.

The contents of the sacs of *Moschus moschiferus.* A crumbling, or somewhat soft mass of a peculiar odor, free from the smell of ammonia. When spread out in a thin layer, with the aid of oil of turpentine, it appears, under the microscope, to crumble, quite uniformly, into brown, translucent splinters and granules, which should be free from foreign substances. Musk should be dried over sulphuric acid until it ceases to lose weight. On ignition, Musk should not leave more than 8 per cent. of ash.

MUCILAGO GUMMI ARABICI.

MUCILAGE OF ACACIA. GUMMISCHLEIM.

[*Mucilago Acaciæ, U. S. Ph.; Mucilage of Gum Arabic.*]

Wash

Acacia, *one part* 1

with water ; then dissolve it in

Water, *two parts* 2

and strain.

Mucilage of Acacia should be clear.

MUCILAGO SALEP.

MUCILAGE OF SALEP. SALEPSCHLEIM.

Shake

Powdered Salep, *one part*..... 1

in a flask containing

Water, *ten parts*..... 10

until the powder is well divided ; then add

Boiling Water, *ninety parts* 90

and shake the mixture in the same flask until cold.

It should be prepared only when ordered.

MYRRHA.

MYRRH. MYRRHE.

(*Gummi-resina Myrrha.*)

A gum-resin obtained from *Balsamea Myrrha* (*Balsamodendron Myrrha*). In tears or foraminous masses of a yellowish, reddish, or brownish color; internally often spotted with white; in small pieces translucent. Myrrh has an aromatic odor and a bitter, persistently acrid taste. When Myrrh is exhausted by alcohol (which dissolves about 30 per cent.), the tincture evaporated and the resinous residue dissolved in ether,—on causing bromine vapor to come in contact with the ethereal solution, it acquires a red or violet color.

NATRIUM ACETICUM.

ACETATE OF SODIUM. NATRIUMACETAT.

[*Sodii Acetas, U. S. Ph.*]

(*Natrum aceticum; Terra foliata tartara crystallisata; Essigsaures Natron.*)

Colorless, transparent crystals, efflorescent in warm air, yielding an alkaline solution when dissolved in 1.4 part of water. Soluble in 23 parts of cold, and in 2 parts of boiling alcohol.

When heated, the Salt melts, loses its water of crystallization, and leaves a dry mass, which, when the temperature is further raised, melts again, and, finally, at a red heat, is decomposed, evolving the odor of acetone and leaving a residue which colors the flame yellow.

The aqueous solution of the Salt (1=20) should not be affected by hydrosulphuric acid, solution of sulphide of ammonium, nitrate of barium, or oxalate of ammonium; nor by nitrate of silver after the addition of nitric acid.

NATRIUM BENZOICUM.

BENZOATE OF SODIUM. NATRIUMBENZOAT.

[*Sodii Benzoas, U. S. Ph.*]

(*Natrum benzoicum; Benzoesaures Natron.*)

A white, anhydrous, amorphous powder, soluble in 1.5 part of water; less soluble in alcohol. When heated, it fuses, and leaves a carbonaceous residue, which effervesces with acids, and imparts a yellow color to the flame. The aqueous solution (1=10) has a slightly acid reaction; and, on the addition of hydrochloric acid, yields a soft mass of white crystals, soluble in ether.

The aqueous solution of the Salt (1=20) should not be rendered turbid by nitrate of barium ; and, after the addition of nitric acid, and dissolving any separated crystals by means of alcohol, it should not yield a precipitate on the addition of nitrate of silver.

NATRIUM BICARBONICUM.

BICARBONATE OF SODIUM. NATRIUMBICARBONAT.

[*Sodii Bicarbonas, U. S. Ph.*]

(*Natrum bicarbonicum ; Doppeltkohlensaures Natron.*)

White, crystalline crusts, or coalesced, crystalline masses, permanent in the air ; having a mildly alkaline taste ; soluble in 13.8 parts of water, and insoluble in alcohol. When gently heated, the Salt loses carbonic acid, and leaves a strongly alkaline residue, which effervesces with acids. A fragment heated in the loop of a platinum wire, imparts a yellow color to the flame, which should not appear more than transiently red when viewed through a blue glass.

The Salt should not evolve the odor of ammonia, when heated with solution of soda.

An aqueous solution of the Salt (1=20), prepared with the aid of nitric acid, should not be rendered opalescent by nitrate of silver within 10 minutes. The aqueous solution (1=50), supersaturated with acetic acid, should not be affected by hydrosulphuric acid ; nor rendered more than opalescent by nitrate of barium, after 2 minutes.

When 2 Gm. of Bicarbonate of Sodium are left in contact with 15 C.c. of water for 10 minutes, the decanted liquid, when treated with test-solution of mercuric chloride, should not exhibit more than a white cloudiness within 5 minutes, and should afford no brownish-red precipitate.

NATRIUM BROMATUM.

BROMIDE OF SODIUM. NATRIUMBROMID.

[*Sodii Bromidum, U. S. Ph.*]

(*Bromnatrium.*)

A white, crystalline powder, permanent in dry air ; soluble in 1.8 part of water and in 5 parts of alcohol. Heated in the loop of a platinum wire, it imparts a yellow color to the flame, which does not appear persistently red when viewed through a blue glass. The aqueous solution, mixed with a little chlorine water and shaken with ether, colors the latter yellowish-red.

The powdered Salt, spread on a white porcelain plate, should not at once be colored yellow when touched with a drop of diluted sulphuric

acid. When laid upon moistened red litmus paper, it should not immediately impart a violet-blue tint to the latter. Chloroform should not be colored violet when shaken with 20 Gm. of an aqueous solution (1=20) of the Salt, mixed with a few drops of solution of ferric chloride. Twenty Gm. of another portion of the aqueous solution should not become turbid on the addition of four drops of test-solution of nitrate of barium.

When 3 Gm. of well-dried Bromide of Sodium are dissolved in water to 100 C.c., and to 10 C.c. of this solution a few drops of test-solution of chromate of potassium are added,—not more than 29.6 C.c. of volumetric solution of nitrate of silver should be consumed until the red color remains permanent on stirring.

NATRIUM CARBONICUM.

CARBONATE OF SODIUM. NATRIUMCARBONAT.

[*Sodii Carbonas, U. S. Ph.*]

(*Natrum carbonicum depuratum; Reines kohlensaures Natron.*)

Colorless, translucent crystals, efflorescent in the air, having an alkaline taste; soluble in 1.8 part of cold and in 0.3 part of boiling water; the solutions having an alkaline reaction. Insoluble in alcohol. The Salt effervesces with acids, and, when heated in the loop of a platinum wire, imparts a yellow color to the flame. It contains 37 per cent. of anhydrous Carbonate of Sodium.

The aqueous solution (1=50) should not be affected by solution of sulphide of ammonium; nor, when supersaturated with acetic acid, by hydrosulphuric acid, or nitrate of barium; nor should nitrate of silver, after the addition of nitric acid, cause more than an opalescent cloudiness after 10 minutes.

When 2 Gm. of the Salt are dissolved in 10 C.c. of diluted sulphuric acid, the resulting solution, after being mixed with test-solution of iodine and zinc, and treated as directed under *Acidum Hydrochloricum*, should not affect paper moistened with a concentrated (1=2) solution of nitrate of silver.

NATRIUM CARBONICUM CRUDUM.

SAL SODA. SODA.

[*Commercial Carbonate of Sodium.*]

(*Natrum carbonicum crystallisatum crudum; Rohes kohlensaures Natron.*)

Large, colorless crystals, or crystalline masses, having an alkaline reaction, efflorescent in the air, and soluble in 3 parts of water. The Salt

dissolves in acids with effervescence. It should contain not less than 32 per cent. of anhydrous Carbonate of Sodium.

NATRIUM CARBONICUM SICCUM.

Dried Carbonate of Sodium. Entwässertes Natriumcarbonat.

[*Sodii Carbonas Exsiccatus, U. S. Ph.*]

(*Getrocknete Soda.*)

Expose Carbonate of Sodium, in coarse powder, to the air, at a temperature not exceeding 25° C., in a place free from dust, so that it may completely effloresce; then dry it between 40 and 50° C. until it has lost half its weight; finally, pass the powder through a sieve.

A fine, white, bulky powder.

When Carbonate of Sodium is ordered to be mixed with powders, the Dried Carbonate of Sodium should be dispensed.

NATRIUM CHLORATUM.

Chloride of Sodium. Natriumchlorid.

[*Sodii Chloridum, U. S. Ph.; Common Salt.*]

(*Natrum muriaticum purum; Kochsalz.*)

White, cubical crystals, or a crystalline powder, having a saline taste, and soluble in 2.7 parts of water. When heated in the loop of a platinum wire, the Salt imparts a yellow color to the flame. Its aqueous solution yields, with nitrate of silver, a white, curdy precipitate, soluble in water of ammonia.

The aqueous solution (1=20) should have a neutral reaction, and should not be affected by hydrosulphuric acid, solution of sulphide of sodium, or nitrate of barium; nor, after the addition of water of ammonia, by oxalate of ammonium, or phosphate of sodium.

NATRIUM JODATUM.

Iodide of Sodium. Natriumjodid.

[*Sodii Iodidum, U. S. Ph.*]

(*Jodnatrium.*)

A dry, white, crystalline powder, deliquescent on exposure to air; soluble in 0.9 part of water, and in 3 parts of alcohol. When heated

in the loop of a platinum wire, the Salt imparts to the flame a yellow color, which appears only transiently red when viewed through a blue glass. Chloroform is colored violet when shaken with an aqueous solution of the Salt mixed with chlorine water.

The aqueous solution (1=20) should not be affected by hydrosulphuric acid ; and, when mixed with diluted sulphuric acid, it should not color chloroform violet, when shaken with it.

When an active evolution of gas is produced by the action of hydrochloric acid upon metallic zinc, and an aqueous solution of the Salt, mixed with some solution of starch, is added, the liquid should not acquire a blue color. When 10 drops of test-solution of nitrate of barium are added to 20 C.c. of the aqueous solution (1=20), it should not be rendered cloudy within 5 minutes. The tests for cyanogen should be applied in the same manner as directed under *Kalium jodatum*.

When 0.2 Gm. of well-dried Iodide of Sodium is dissolved in 2 C.c. of water of ammonia, and shaken with 14 C.c. of volumetric solution of nitrate of silver, the filtrate, supersaturated with 2 C.c. of nitric acid, should not become so cloudy as to lose its transparency within 10 minutes.

It should be **cautiously** preserved.

NATRIUM NITRICUM.

NITRATE OF SODIUM. NATRIUMNITRAT.

[*Sodii Nitras, U. S. Ph.; Cubic Nitre ; Chili Saltpetre.*]

(*Nitrum cubicum ; Chilisalpeter.*)

Colorless, transparent, rhombohedral crystals, permanent in dry air, and having a saline, cooling, and bitter taste. Soluble in 1.5 part of water, and in 50 parts of alcohol. A fragment of the Salt heated in the loop of a platinum wire imparts to the flame a yellow color, which appears only transiently red when viewed through a blue glass. The aqueous solution, when treated with sulphuric acid and excess of solution of ferric sulphate, acquires a brownish-black color.

The aqueous solution (1=20) should not be affected by hydrosulphuric acid, oxalate of ammonium, or nitrate of silver. No turbidity should be produced in 20 C.c. of another portion of the aqueous solution, within 2 minutes, by 6 drops of test-solution of nitrate of barium ; nor should 5 C.c. of the same solution, mixed with a small quantity of zinc-filings and 10 drops of nitric acid, and allowed to stand a short time, impart a violet color to chloroform shaken with it.

NATRIUM PHOSPHORICUM.

PHOSPHATE OF SODIUM. NATRIUMPHOSPHAT.

[*Sodii Phosphas, U. S. Ph.*]

(*Phosphorsaures Natron.*)

Colorless, translucent crystals, efflorescent in dry air, having a slightly saline taste, and an alkaline reaction. The crystals melt at 40° C., and dissolve in 5.8 parts of water.

When heated in the loop of a platinum wire the Salt imparts to the flame a yellow color, which should appear only transiently red when viewed through a blue glass. The aqueous solution yields, with nitrate of silver, a yellow precipitate, soluble both in water of ammonia and in nitric acid.

The aqueous solution (1=20), acidulated with hydrochloric acid, should not be affected by hydrosulphuric acid ; and, when acidulated with nitric acid, it should not be rendered more than opalescent, after 3 minutes, by nitrate of barium or nitrate of silver ; nor, when supersaturated with water of ammonia, should it be affected by solution of sulphide of ammonium, or oxalate of ammonium.

When 2 Gm. of the Salt are dissolved in 10 C.c. of diluted sulphuric acid, the resulting solution, after being mixed with test-solution of iodine and zinc, and treated as directed under *Acidum Hydrochloricum*, should not affect paper moistened with a concentrated (1=2) solution of nitrate of silver.

NATRIUM SALICYLICUM.

SALICYLATE OF SODIUM. NATRIUMSALICYLAT.

[*Sodii Salicylas, U. S. Ph.*]

(*Salicylsaures Natron.*)

White, anhydrous, crystalline scales, of a sweetish, saline taste ; soluble in 0.9 part of water, and in 6 parts of alcohol.

A concentrated aqueous solution of the Salt is colored reddish-brown by ferric chloride ; a diluted solution (1=1,000) acquires a violet color with the same reagent. The concentrated solution, when treated with hydrochloric acid, deposits white crystals, which are readily soluble in ether. When heated, the salt yields a carbonaceous residue which effervesces with acids, and colors the flame yellow.

The concentrated aqueous solution of the Salt should have a feebly

acid reaction, and should be colorless, or assume, at most, only a faintly reddish tint, after standing for some time. The Salt should be dissolved by sulphuric acid without effervescence, or apparent coloration. The aqueous solution (1=20) should not be affected by nitrate of barium; nor, when treated by nitric acid, and the precipitated crystals redissolved by means of alcohol, should it become cloudy on the addition of nitrate of silver.

NATRIUM SULFURICUM.

SULPHATE OF SODIUM. NATRIUMSULFAT.

[*Sodii Sulphas, U. S. Ph.; Glauber's Salt.*]

(*Natrum sulfuricum; Sal mirabile Glauberi depuratum; Glaubersalz.*)

Colorless, efflorescent crystals, which readily melt, and are soluble in 3 parts of cold water, in 0.3 part of water at 33° C., and in 0.4 part at 100° C.; but insoluble in alcohol. The Salt, when heated in a loop of platinum wire, imparts a yellow color to the flame. The aqueous solution yields, with nitrate of barium, a white precipitate, insoluble in acids.

The aqueous solution (1=20) should have a neutral reaction, and should not be affected by hydrosulphuric acid, solution of sulphide of ammonium, or oxalate of ammonium; nor, after the addition of water of ammonia, by phosphate of sodium. Nitrate of silver should not render the solution more than opalescent.

NATRIUM SULFURICUM SICCUM.

DRIED SULPHATE OF SODIUM. ENTWÄSSERTES NATRIUMSULFAT.

(*Entwässertes Glaubersalz.*)

Expose sulphate of sodium, in coarse powder, to the air, at a temperature not exceeding 25° C., in a place free from dust, so that it may completely effloresce; then dry it between 40 and 50° C. until it has lost half its weight; finally, pass the powder through a sieve.

The small crystals of sulphate of sodium (resembling Epsom salt) are not suitable for the preparation of Dried Sulphate of Sodium.

A white, fine, and bulky powder.

When sulphate of sodium is ordered to be mixed with powders, the Dried Sulphate of Sodium should be dispensed.

OLEUM AMYGDALARUM.

EXPRESSED OIL OF ALMOND. MANDELÖL.

[*Oleum Amygdalæ Expressum, U. S. Ph.; Almond Oil.*]

The fixed oil of the seeds of *Prunus Amygdalus*. It has a light-yellow color, a mild taste, a specific gravity between 0.915 and 0.920, and remains clear when cooled to — 10° C. When 15 parts of the Oil are thoroughly shaken with a mixture of 2 parts of water and 3 parts of fuming nitric acid, a whitish mixture, free from red or brown color, should be formed, which should separate, after several hours, into a firm, white mass, and a nearly colorless liquid.

OLEUM ANISI.

OIL OF ANISE. ANISÖL.

The volatile oil of the fruit of *Pimpinella Anisum*. It solidifies to a crystalline mass by cold, and becomes partially liquid at 15° C. When completely liquefied it forms a colorless, very aromatic, and strongly refractive liquid, having a specific gravity of 0.980 to 0.990. With alcohol it yields a clear solution, which does not change the color of litmus paper, and is not colored by ferric chloride. One drop of Oil of Anise, triturated with a little sugar, and shaken with 500 Gm. of water, should communicate to the latter a pure taste of Anisi.

OLEUM AURANTII FLORUM.

OIL OF ORANGE FLOWERS. POMERANZENBLÜTHENÖL.

[*Oil of Neroli.*]

(*Oleum florum Naphæ; Oleum Neroli.*)

The oil obtained by distilling the fresh flowers of *Citrus vulgaris* with water. A brownish liquid of very fragrant odor. When a portion of the Oil, in a glass vessel, is covered with an equal layer of alcohol, on gently swaying the glass to and fro, the Oil will exhibit a beautiful, violet fluorescence. The alcoholic solution of the Oil has a somewhat bitter taste, and does not affect litmus.

OLEUM CACAO.

OIL OF THEOBROMA. CACAOBUTTER.

[*Oleum Theobromæ, U. S. Ph.; Butter of Cacao.*]

(*Butyrum Cacao.*)

The concrete oil, expressed from the decorticated seeds of *Theobroma Cacao*. It has a very pale-yellowish color, and the peculiar, mild and

agreeable odor and taste of cacao. It is brittle at 15° C., but melts to a clear liquid between 30 and 35° C. When 1 part is dissolved in 2 parts of ether, the solution remains clear at a temperature between 12 and 15° C., during one day.

OLEUM CAJEPUTI.

Oil of Cajuput. Cajeputöl.

[*Oleum Cajuputi, U. S. Ph.*]

The volatile oil of the leaves of *Melaleuca Leucadendron*, generally colored green by copper. It has a peculiar odor, and an aromatic, somewhat bitterish taste. The Oil is decolorized when shaken with water mixed with a drop of diluted hydrochloric acid. When 1 part of powdered iodine is gradually mixed with 5 parts of the Oil, at the temperature of 50° C., the mixture, upon cooling, forms a pulpy crystalline mass.

OLEUM CALAMI.

Oil of Calamus. Calmusöl.

The volatile oil distilled from the rhizome of *Acorus Calamus*. The Oil has a brownish-yellow color, is very aromatic, and has a bitterish taste. Oil of Calamus, diluted with an equal amount of alcohol, is colored reddish-brown by 1 drop of test-solution of ferric chloride.

OLEUM CAMPHORATUM.

Camphorated Oil. Campheröl.

[*Linimentum Camphoræ, U. S. Ph.; Camphor Liniment.*]

A filtered solution of 1 part of camphor in 9 parts of olive oil.

OLEUM CANTHARIDATUM.

Cantharides Oil. Cantharidenöl.

Cantharides, in coarse powder, *three parts*	3
Oil of Rapeseed, *ten parts*	10

Digest for 10 hours, on a steam-bath, express and filter.
A yellowish-green Oil.

OLEUM CARVI.

OIL OF CARAWAY. KÜMMELÖL.

[*Oleum Cari, U. S. Ph.*]

The higher-boiling portion of the volatile oil of the fruit of *Carum Carvi*. A pale-yellowish, or colorless liquid, attaining its full boiling point at 224° C., having the fine aromatic odor of the fruit, and a specific gravity not below 0.910. A portion of the Oil, mixed with an equal amount of alcohol, is colored pale violet or reddish by 1 drop of solution of ferric chloride. A mixture of 10 parts of Oil of Caraway, 8 parts of alcohol, and 1 part of water of ammonia, when saturated with hydrosulphuric acid gas, forms a white, crystalline mass.

OLEUM CARYOPHYLLORUM.

OIL OF CLOVES. NELKENÖL.

[*Oleum Caryophylli, U. S. Ph.*]

The volatile Oil of Cloves, having a specific gravity of 1.041 to 1.060, a yellowish to brownish color, and a strongly aromatic odor and taste. It does not redden litmus. When Oil of Cloves is shaken, in the cold, with an equal amount of water of ammonia of the specific gravity 0.930 or less, it changes to a soft, yellow, crystalline mass. When a drop of the Oil is made to flow over the inside of a glass bottle, it assumes a blue or violet color when fumes of bromine are admitted. A solution of 1 drop of the Oil in 4 Gm. of alcohol is colored blue on the addition of 1 drop of a mixture, consisting of 1 part of solution of ferric chloride and 20 parts of water. Hot water shaken with Oil of Cloves should acquire no acid reaction; and, when cold and filtered, it should not be colored blue or greenish by 1 drop of solution of ferric chloride; but it should be colored yellow on the addition of lime-water. Oil of Cloves should yield a clear mixture with an equal amount, or more, of diluted alcohol.

OLEUM CINNAMOMI.

OIL OF CINNAMON. ZIMMTÖL.

[*Oil of Cassia.*]

(*Oleum Cassiæ; Oleum Cinnamomi Cassiæ.*)

The volatile Oil of Cinnamon. A yellow or brownish liquid, of a specific gravity between 1.055 and 1.065; having the peculiar aroma of cinnamon, and forming a clear solution with alcohol in all proportions.

When 4 drops of the Oil are shaken with 4 drops of fuming nitric

acid, the mixture yields crystalline plates or needles without becoming hot. When 4 drops of the Oil are dissolved in 10 C.c. of alcohol, and 1 drop of solution of ferric chloride added, the mixture may assume a brown color, but should not become green or blue. Water shaken with Oil of Cinnamon has a sweet taste, with a burning, aromatic after-taste.

OLEUM CITRI.

Oil of Lemon. Citronenöl.

[*Oleum Limonis, U. S. Ph.*]

(*Oleum de Cedro.*)

The volatile oil obtained from the fresh peel of the fruit of *Citrus Limonum*, without distillation. The Oil has a pale yellow color and the fragrant odor of lemon. It does not yield a clear solution with alcohol in all proportions. When 1 drop of Oil of Lemon is triturated with sugar and shaken with 500 Gm. of water, it communicates to the latter the pure taste of lemon.

When the Oil is heated in a retort to incipient ebullition, no alcohol should pass over.

OLEUM COCOS.

Coco-nut Oil. Cocosnussöl.

[*Cocoa-nut Oil.*]

(*Cocosöl.*)

The fixed oil of the seed-kernels of *Cocos nucifera*, having a white color and the consistence of butter. At a temperature between 23 and 30° C. it melts to a clear liquid, giving off a weak, peculiar odor.

OLEUM CROTONIS.

Croton Oil. Crotonöl.

[*Oleum Tiglii, U. S. Ph.*]

The thickish, fixed oil expressed from the seed-kernels of *Croton Tiglium*. It has a brown color and an acid reaction.

Croton Oil should be **cautiously** preserved.

Largest single dose ..... **0.05 Gm.**
Largest daily dose ..... **0.1 Gm.**

OLEUM FŒNICULI.

OIL OF FENNEL. FENCHELÖL.

The volatile oil of the fruit of *Fœniculum capillaceum*. It is colorless and has a very aromatic odor. Specific gravity not below 0.960. Crystalline plates of anethol are often formed in the Oil, when exposed to cold. With alcohol the Oil yields a clear solution which has no action on litmus paper, and is not colored by solution of ferric chloride. When 1 drop of Oil of Fennel is triturated with sugar and shaken with 500 Gm. of water, it communicates to the latter the pure taste of fennel.

OLEUM HYOSCYAMI.

HYOSCYAMUS LINIMENT. BILSENKRAUTÖL.

(*Oleum Hyoscyami coctum.*)

Hyoscyamus, cut, *four parts*	4
Alcohol, *three parts*	3

Macerate for a few hours; then add

Olive Oil, *forty parts*	40

and digest, on a steam-bath, stirring occasionally, until the alcohol is evaporated. Finally, express and strain.

It should have a brownish-green color.

OLEUM JECORIS ASELLI.

COD-LIVER OIL. LEBERTHRAN.

[*Oleum Morrhuæ, U. S. Ph.*]

The fixed oil obtained from the fresh livers of *Gadus Morrhua*, by a very moderate heat of the steam-bath. It has a pale yellow color, and a peculiar odor and taste, free from rancidity. Litmus paper, moistened with alcohol, should be but slightly reddened by the Oil. When 1 drop of the Oil is dissolved in 20 drops of disulphide of carbon, and shaken with 1 drop of sulphuric acid, the mixture will acquire, for a moment, a beautiful violet-red color. When the Oil is allowed to stand at a temperature of 0° C., for a considerable time, it should not deposit stearin, or but very little.

OLEUM JUNIPERI.

OIL OF JUNIPER. WACHOLDERÖL.

(*Wacholderbeeröl.*)

The volatile oil obtained by distillation from the fruit of *Juniperus communis*. It is colorless or slightly yellow; sparingly soluble in alcohol; forming a clear mixture with disulphide of carbon. Oil of Juniper should not be viscid; and 1 drop triturated with sugar, and shaken with 500 Gm. of water should not communicate a sharp taste to the latter.

OLEUM LAURI.

EXPRESSED OIL OF LAUREL. LORBEERÖL.

[*Expressed Oil of Bay.*]

(*Oleum Laurinum; Oleum Lauri expressum; Oleum Lauri unguinosum.*)

The oil obtained from the fruit of *Laurus nobilis* by expression. A green, unctuous, crystalline mixture of the fixed and volatile oils of the fruit. It melts at about 40° C. to a dark-green, aromatic liquid. This liquid, when mixed and gently heated with double its weight of alcohol, affords a solution which, when cold and decanted, should not be colored red by water of ammonia.

OLEUM LAVANDULÆ.

OIL OF LAVENDER FLOWERS. LAVENDELÖL.

[*Oleum Lavandulæ, U. S. Ph.*]

The volatile oil of the flowers of *Lavandula vera*. It is a colorless, or slightly yellow liquid, having the characteristic odor of lavender flowers, and a specific gravity between 0.885 and 0.895. It forms clear mixtures with alcohol, and with acetic acid containing 90 per cent. of absolute acid. Upon distillation no alcohol should pass over.

OLEUM LINI.

OIL OF FLAXSEED. LEINÖL.

[*Linseed Oil.*]

The fixed oil of the seeds of *Linum usitatissimum*. It has a yellow color, and a peculiar odor; remains liquid at a temperature as low as — 20° C., and soon dries when spread out in a thin layer. Specific gravity 0.936 to 0.940.

OLEUM MACIDIS.

OIL OF MACE. MACISÖL.

(*Muscatblüthenöl.*)

The volatile oil of the arillus of *Myristica fragrans*. It is colorless or pale yellow, and has the peculiar odor of mace.

OLEUM MENTHÆ PIPERITÆ.

OIL OF PEPPERMINT. PFEFFERMINZÖL.

The volatile oil of the leaves and flowering branches of *Mentha piperita*. The oil has a specific gravity of 0.900 to 0.910, and forms clear mixtures, both with alcohol, and diluted alcohol. When 0.2 Gm. of powdered iodine is moistened with Oil of Peppermint, no heat should be developed. When the Oil is heated in a retort to incipient ebullition, no alcohol should pass over.

OLEUM NUCISTÆ.

EXPRESSED OIL OF NUTMEG. MUSCATBUTTER.

[*Butter of Nutmeg.*]

(*Oleum Myristicæ; Oleum Nucistæ expressum; Butyrum Nucistæ; Muscatnussöl.*)

A mixture of fixed and volatile oils, and of coloring matter prepared from the seed-kernels of *Myristica fragrans*. A brownish-red, here and there whitish mass, having the aromatic odor and taste of nutmeg; and melting, at 45° C., to a brownish-red, not entirely clear liquid.

On gently heating Expressed Oil of Nutmeg with 10 times its weight of alcohol, the cold, clear and pale-yellowish filtrate should not be reddened, or rendered more than slightly brownish by water of ammonia; nor should it acquire more than a dirty brown tint on the addition of ferric chloride.

OLEUM OLIVARUM.

OLIVE OIL. OLIVENÖL.

[*Oleum Olivæ, U. S. Ph.; Sweet Oil.*]

(*Provencer Baumöl.*)

The cold-expressed oil of the sarcocarp of *Olea europæa*. It has a yellow, often nearly greenish color; a feeble, peculiar odor, and an agreeable taste. Specific gravity 0.915 to 0.918. At the temperature of about 10° C. the Oil begins to become cloudy by the separation of

crystalline particles, and at 0° C. it congeals to an unctuous mass. When 5 Gm. of Olive Oil are thoroughly shaken with 15 drops of nitric acid of the specific gravity of 1.380, neither the acid nor the supernatant mass should be colored red. When 15 parts of the Oil are thoroughly shaken with a mixture of 2 parts of water and 3 parts of fuming nitric acid, the mixture should have a whitish, and no reddish or brownish color; and this mixture should separate, after 1 or 2 hours, into a solid mass and an almost colorless liquid.

OLEUM OLIVARUM COMMUNE.

COMMON OLIVE OIL. GEMEINES OLIVENÖL.

[*Common Sweet Oil.*]

(*Grünes Baumöl.*)

An inferior quality of the fixed oil, prepared from the sarcocarp of *Olea europæa*. It has a brownish-yellow or greenish color, and a scarcely agreeable odor or taste; from the separation of crystalline flakes it becomes turbid or pulpy, and, by exposure to cold, quite firm. When 15 parts of the Oil are thoroughly shaken with a mixture of 2 parts of water and 3 parts of fuming nitric acid, a solid white mass should be formed at least within 2 hours. When 5 Gm. of the Oil are forcibly shaken with 2 drops of sulphuric acid in a test-tube, a greenish mixture is formed, which should not blacken on immersing the test-tube, during 1 minute, in boiling water.

OLEUM PAPAVERIS.

POPPY OIL. MOHNÖL.

An oil expressed from the seeds of *Papaver somniferum*. It has a pale-yellow color, and a mild, agreeable taste; remaining clear at a temperature of 0° C. When exposed to the air, in a thin layer, it soon thickens by drying.

OLEUM RAPÆ.

OIL OF RAPE SEED. RÜBÖL.

The fixed oil [of the seeds] of the cultivated varieties of *Brassica*. The Oil is viscid, has a brownish-yellow color, and congeals to a crystalline mass at 0° C., having no agreeable odor and taste. It does not harden by drying when spread out in thin layers. The specific gravity is not less than 0.913; and 20 drops of the Oil shaken with 5 C.c. of disulphide of carbon and 1 drop of sulphuric acid should not assume a blue or violet color, but only a pale-greenish tint at first, changing afterward to brownish.

OLEUM RICINI.

Castor Oil. Ricinusöl.

(*Oleum Castoris; Oleum palmæ Christi.*)

A fixed oil expressed from the shelled seeds of *Ricinus communis*. The Oil has a pale yellowish color, viscid consistence, and a peculiar odor and taste. Specific gravity 0.950 to 0.970; becoming turbid by depositing crystalline flakes at 0° C.; at a still lower temperature it becomes butyraceous. It dries slowly when spread out in thin layers. It forms clear mixtures with 1 to 3 parts of alcohol, and with all proportions of absolute alcohol and glacial acetic acid. When 3 Gm. of Castor Oil are shaken for several minutes with 3 Gm. of disulphide of carbon and 2 Gm. of sulphuric acid, the mixture should not acquire a brownish-black color.

OLEUM ROSÆ.

Oil of Rose. Rosenöl.

The volatile oil of roses. A pale yellowish liquid in which are formed, by cold, transparent crystalline scales which disappear again at a temperature of 12 to 15° C. When 1 part of Oil of Rose is diluted with 5 parts of chloroform, and then mixed with 20 parts of alcohol, crystalline spangles are separated; and the alcoholic liquid should not redden litmus paper moistened with water. When 1 drop of Oil of Rose is rubbed with sugar, and then shaken with 500 Gm. of water, it should communicate to the latter the pure odor of rose.

OLEUM ROSMARINI.

Oil of Rosemary. Rosmarinöl.

(*Oleum Anthos.*)

The volatile oil of the leaves of *Rosmarinus officinalis*. A colorless or slightly yellowish liquid of a camphoraceous odor; the greater part distilling over below 170° C.

OLEUM SINAPIS.

Volatile Oil of Mustard. Senföl.

[*Oleum Sinapis Volatile, U. S. Ph.*]

The volatile oil obtained from *Brassica nigra* by maceration of the seeds in cold water, and subsequent distillation. The Oil has a yellowish color, a very pungent odor, and a specific gravity between 1.016 and

1.022. Oil of Mustard, subjected to distillation, should not begin to boil below 148° C., and should all pass over at this temperature; and every fraction of the distillate, from first to last, should have the same specific gravity as the original Oil. If 6 Gm. of sulphuric acid are gradually dropped into 3 Gm. of the Oil, the mixture being kept cool, sulphurous acid vapor is developed on shaking; the mixture remains slightly yellow, and perfectly clear, then becomes tenacious, sometimes crystalline, and loses the pungent odor of Oil of Mustard.

When 3 Gm. of the Oil are shaken with 3 Gm. of alcohol and 6 Gm. of water of ammonia, in a test-tube, the mixture becomes clear in a few hours in the cold (rapidly at 50° C.), and generally yields colorless crystals of thiosinamine. The yellow mother liquor is now poured off, and gradually evaporated on a water-bath, new portions of the liquid being added only after the previous portion no longer gives out the odor of ammonia; afterward the crystals are also transferred to the evaporating dish, and the heating continued; finally, the test-tube is rinsed with alcohol until it ceases to lose weight, the rinsings also added, and the whole evaporated until the contents of the capsule no longer sustain any loss in weight. The thiosinamine obtained by this method should weigh from 3.25 to 3.50 Gm.; after cooling, it forms a brownish, crystalline mass, melting at 70° C., having an odor resembling that of leek, without pungency, soluble in twice its weight of warm water, and yielding a solution of a neutral reaction, and a somewhat bitter, but not persistent taste.

Volatile Oil of Mustard should be cautiously preserved.

OLEUM TEREBINTHINÆ.

Oil of Turpentine. Terpenthinöl.

[*Spirit of Turpentine.*]

(*Spiritus Terebinthinæ.*)

The volatile Oil of Turpentine, especially that obtained from the turpentine of *Pinus Pinaster*, as well as from *Pinus australis* and *Pinus Tæda*. The Oil is colorless or pale-yellowish, having a peculiar odor, a specific gravity from 0.855 to 0.865, and boils between 150 and 160° C.

OLEUM TEREBINTHINÆ RECTIFICATUM.

Rectified Oil of Turpentine. Rectificirtes Terpenthinöl.

Oil of Turpentine is shaken with 6 times its weight of lime-water, about three-fourths of the weight of the Oil distilled off, and the clear

distillate separated from the water. Rectified Oil of Turpentine should be colorless, and, when dissolved in alcohol, should not change the color of litmus paper moistened with water. It begins to boil at 160° C., and has a specific gravity from 0.855 to 0.865.

OLEUM THYMI.

OIL OF THYME. THYMIANÖL.

The volatile oil obtained from the leaves and flowering branches of *Thymus vulgaris*. The Oil is colorless or very slightly reddish, and has a strongly aromatic odor and taste. It is soluble in half its weight of alcohol, forming a solution which should not be colored yellowish-brown by 1 drop of solution of ferric chloride.

OPIUM.

OPIUM. OPIUM.

(*Laudanum; Meconium; Mohnsaft.*)

The spontaneously inspissated, milky juice, obtained in Asia Minor by incising the unripe capsules of *Papaver somniferum*. A brown mass, internally of a uniform consistence, at first soft, but, when fully air-dried, becoming brittle. The cakes of Opium are enveloped with poppy leaves, which are sprinkled with the fruits of a species of Rumex. Opium has a narcotic odor, and a sharp, bitter, and burning taste.

Before use, Opium should be cut into small pieces, and when not sufficiently dry to be reduced to powder, it should be dried at a temperature not exceeding 60° C. Powdered Opium, when assayed by the following method, should yield at least 10 per cent. of morphine.

Mix 8 Gm. of Powdered Opium with 80 Gm. of water, shake the mixture occasionally, and filter after twelve hours. Mix 42.5 Gm. of the filtrate with 12 Gm. of alcohol, 10 Gm. of ether, and 1 Gm. of water of ammonia; let the mixture stand in a closed bottle, shaking frequently, for 12 hours, at a temperature between 10 and 15° C.; then transfer the contents of the bottle to a small tared filter, about 80 millimeters in diameter, and previously dried at 100° C. When the liquid has all passed through the filter, wash the crystals of morphine remaining on the filter twice with a mixture of 2 Gm. of diluted alcohol, 2 Gm. of water and 2 Gm. of ether, and dry them, together with the filter, at a temperature of 100° C. The weight of crystals should not be less than 0.4 Gm.

The morphine obtained, when shaken with 100 parts of lime-water, after a few hours, should yield a yellowish solution, which, by the grad-

ual addition of chlorine water, assumes a permanent, brownish-red color, while solution of ferric chloride colors it blue or green.

Opium should be cautiously preserved.

Largest single dose..... 0.15 Gm.
Largest daily dose..... 0.5 Gm.

OXYMEL SCILLÆ.

OXYMEL OF SQUILL. MEERZWIEBELHONIG.

Vinegar of Squill, *five parts*.....	5
Clarified Honey, *ten parts*.....	10

Evaporate them to

Ten parts.....	10

on a water-bath, and strain.

Oxymel of Squill should be clear, and of a yellowish-brown color.

PARAFFINUM LIQUIDUM.

LIQUID PARAFFIN. FLÜSSIGES PARAFFIN.

A clear, oily liquid, obtained from petroleum, after distilling off the lower-boiling portions. The specific gravity should not be below 0.840.

It should be free from colored, fluorescent, and odorous substances, and should not boil below 360° C.

When sulphuric acid is kept in contact with Liquid Paraffin, with frequent agitation at the temperature of the water-bath, for a day, it should not alter it, and the acid should not assume more than a slightly brown tint. Metallic sodium should not be tarnished under the same treatment. Alcohol should not acquire an acid reaction when boiled with Liquid Paraffin.

PARAFFINUM SOLIDUM.

SOLID PARAFFIN. FESTES PARAFFIN.

A white, solid, inodorous, micro-crystalline mass, obtained from combustible, mineral substances, and melting at a temperature between 74 and 80° C. It should respond to the tests for purity given under Liquid Paraffin (*Paraffinum Liquidum*).

PEPSINUM.

PEPSIN. PEPSIN.

A fine, nearly white, non-hygroscopic powder; almost tasteless and odorless. It does not form a clear solution with water; but on the ad-

dition of a small quantity of hydrochloric acid, the solution becomes more clear. 0.1 Gm. of Pepsin, dissolved in 150 Gm. of water and 2.5 Gm. of hydrochloric acid, should digest 10 Gm. of hard-boiled egg albumen, cut into pieces the size of lentils, to a slightly opalescent liquid, on exposing the mixture to the temperature of 40° C., for 4 to 6 hours, with frequent and strong agitation.

PERCHA LAMELLATA.

GUTTA-PERCHA [IN SHEETS]. GUTTAPERCHAPAPIER.

[*Gutta-Percha, U. S. Ph.*]

The purified, dried, milky juice, principally obtained from *Dichopsis* (*Isonandra*) *Gutta*, and other species of the genera of *Dichopsis, Ceratophorus* and *Payena*, rolled out into very thin sheets. They should be reddish-brown, translucent and very elastic ; but not sticky.

PHOSPHORUS.

PHOSPHORUS. PHOSPHOR.

White or yellowish, translucent cylindrical pieces, of a waxy lustre. Phosphorus melts under water at 44° C.; when exposed to the air it emits fumes of a peculiar odor, becomes luminous in the dark, and ignites easily. When preserved for a considerable time it becomes red, and sometimes black. It is insoluble in water ; very readily soluble in disulphide of carbon ; less soluble in fatty and volatile oils, and sparingly soluble in alcohol and ether.

Phosphorus should be **very cautiously** kept under water, protected from the light.

Largest single dose ..... **0.001 Gm.**
Largest daily dose ..... **0.005 Gm.**

PHYSOSTIGMINUM SALICYLICUM.

SALICYLATE OF PHYSOSTIGMINE. PHYSOSTIGMINSALICYLAT.

[*Physostigminæ Salicylas, U. S. Ph.*]

Colorless or pale-yellowish crystals ; soluble in 150 parts of water and in 12 parts of alcohol. The dry Salt remains unchanged, even in the light, for a considerable time ; but the aqueous or alcoholic solution, even when exposed to diffused light only, turns reddish in a few hours.

The aqueous solution of the Salt acquires a violet color on the addition of a dilute solution of ferric chloride, and is rendered turbid by test-solution of iodine. The solution in sulphuric acid is colorless at first, and afterward becomes yellow.

It should be **very cautiously** preserved, and protected from the light.

Largest single dose..... 0.001 Gm.
Largest daily dose..... 0.003 Gm.

PILOCARPINUM HYDROCHLORICUM.

HYDROCHLORATE OF PILOCARPINE. PILOCARPINHYDROCHLORAT.

[*Pilocarpinæ Hydrochloras, U. S. Ph.*]

White crystals, deliquescent in the air, of a neutral reaction and a bitter taste. Readily soluble in water or alcohol; sparingly soluble in ether or chloroform. The Salt dissolves to a faintly greenish solution in fuming nitric acid. Water of ammonia affords no precipitate in a dilute aqueous solution of the Salt; and solution of soda causes a turbidity only in a concentrated solution.

It should be **cautiously** preserved.

Largest single dose..... 0.03 Gm.
Largest daily dose..... 0.06 Gm.

PILULÆ ALOËTICÆ FERRATÆ.

PILLS OF ALOES AND IRON. EISENHALTIGE ALOËPILLEN.

[*Pilulæ Aloes et Ferri, U. S. Ph.; Ferrated Pills of Aloes.*]

Dried Sulphate of Iron,
Aloes, powdered, of each, *equal parts.*

Mix, and beat them into a pilular mass by means of alcohol, and divide it into pills, each weighing 0.1 Gm.; then by means of tincture of aloes give them a shining, black coating.

PILULÆ FERRI CARBONICI.

PILLS OF CARBONATE OF IRON. EISENPILLEN.

[*Massa Ferri Carbonatis, U. S. Ph.*]

Sulphate of Iron, *fifty parts*..... 50
Boiling Water, *two hundred parts*..... 200

Dissolve the Sulphate of Iron in the Water and filter the solution into a capacious flask containing a clear solution of

Bicarbonate of Sodium, *thirty-five parts*..... 35

in

Lukewarm Water, *five hundred parts*..... 500

Having carefully mixed the contents of the flask, fill it with hot water, close it loosely and set it aside.

Remove the supernatant liquid, and fill the flask again with hot water. When the sediment has subsided, again draw off the liquid from the precipitate, and repeat the operation until nitrate of barium scarcely produces a cloudiness in the liquid.

Having removed as much as possible of the liquid from the precipitate, mix it in a porcelain capsule with

Powdered Sugar, *eight parts*	8
Clarified Honey, *twenty-six parts*	26

and reduce the mixture rapidly, by evaporation in a steam-bath, to

Forty parts	40

Make 200 pills from every 20 Gm. of the mass, with the aid of powdered althæa, and dust them with powdered cinnamon.

Each pill contains 0.025 Gm. of iron.

PILULÆ JALAPÆ.

PILLS OF JALAP. JALAPENPILLEN.

Jalap Soap, *three parts*	3
Jalap, powdered, *one part*	1

Beat them into a pilular mass, which divide into pills, each weighing 0.1 Gm.

Dust the pills with lycopodium, and allow them to dry in a warm place before they are preserved.

PIX LIQUIDA.

TAR. HOLZTHEER.

A product of the destructive distillation of the wood of *Abietineæ*, especially of *Pinus silvestris* and *Larix sibirica*. A viscid, brownish-black mass, often crumbly from the presence of microscopic crystals, and possessing a very peculiar odor. Tar sinks when shaken with water; the latter acquires a faintly yellow color, the taste and odor of tar, and an acid reaction.

Tar water is colored transiently green by a very dilute solution of ferric chloride, and permanently brownish-red by lime-water.

PLACENTA SEMINIS LINI.

FLAXSEED OIL CAKE. LEINKUCHEN.

The hard, gray masses left after the expression of the oil of *Linum usitatissimum*. The powder of these cakes yields, with boiling water,

a mucilaginous, insipid filtrate, which, when cold, should not assume a blue color when shaken with iodine. On examining the powder under the microscope, fragments of the shells of flaxseed can be detected, which should have a light yellow, but no blackish-brown color.

PLUMBUM ACETICUM.

ACETATE OF LEAD. BLEIACETAT.

[*Plumbi Acetas, U. S. Ph.; Sugar of Lead.*]

(*Saccharum saturni depuratum; Essigsaures Bleioxyd; Bleizucker.*)

Colorless, translucent crystals, or white, crystalline masses, slightly efflorescent in the air, having an acetous odor, soluble in 2.3 parts of water, and in 28.6 parts of alcohol. The aqueous solution has a sweetish, astringent taste, and yields a black precipitate with hydrosulphuric acid, a white one with sulphuric acid, and a yellow one with iodide of potassium.

The Salt yields, with 10 parts of water, a clear or faintly opalescent solution which affords a purely white precipitate with ferrocyanide of potassium.

Acetate of Lead should be cautiously preserved.

Largest single dose..... 0.1 Gm.
Largest daily dose..... 0.5 Gm.

PLUMBUM ACETICUM CRUDUM.

CRUDE ACETATE OF LEAD. ROHES BLEIACETAT.

[*Common Acetate of Lead.*]

(*Roher Bleizucker.*)

A solution of the Salt in 3 parts of water may be opalescent, but should not yield a colored precipitate with a solution of ferrocyanide of potassium.

It should be cautiously preserved.

PLUMBUM JODATUM.

IODIDE OF LEAD. BLEIJODID.

[*Plumbi Iodidum, U. S. Ph.*]

(*Jodblei.*)

A heavy, yellow powder, soluble in about 2,000 parts of water; readily soluble in a hot solution of chloride of ammonium. Iodide of Lead melts when heated, and emits violet vapors. The warm aqueous solu-

tion prepared with the aid of chloride of ammonium, when completely precipitated by hydrosulphuric acid, yields a filtrate which leaves no residue on evaporation and gentle ignition.

Iodide of Lead should be **cautiously** preserved.

PODOPHYLLINUM.

PODOPHYLLIN. PODOPHYLLIN.

[*Resina Podophylli; Resin of Podophyllum, U. S. Ph.*]

A substance precipitated by water from an alcoholic extract of the rhizomes of *Podophyllum peltatum*. A yellow powder, or a loose, friable, yellowish or brownish-gray mass. Under the microscope it has an amorphous appearance.

When Podophyllin is heated to 100° C., it becomes gradually darker in color, without fusing. When shaken with water, it yields a nearly colorless filtrate which has a bitter taste, does not change the color of litmus paper, and is colored brown by ferric chloride. Solution of acetate of lead colors this filtrate yellow, and causes a slight opalescence; after several hours reddish-yellow flakes are deposited.

Podophyllin yields, with 100 parts of water of ammonia, a yellowish-brown solution, which is not rendered turbid when diluted with water. When the ammoniacal solution is neutralized, it deposits brown flakes. Podophyllin yields, with 10 parts of alcohol, a dark-brown solution from which it is again precipitated by water, in the form of brownish-gray flakes. It is only partly soluble in ether, and still less soluble in disulphide of carbon.

POTIO RIVERI.

SOLUTION OF CITRATE OF SODIUM. RIVER'SCHER TRANK.

Dissolve

Citric Acid, *four parts* 4

in

Water, *one hundred and ninety parts* 190

Then add

Carbonate of Sodium, in small crystals, *nine parts* 9

and dissolve slowly by rotating the bottle.

Finally, stopper the latter.

It should be prepared only when ordered.

PULPA TAMARINDORUM CRUDA.

CRUDE TAMARIND PULP. TAMARINDENMUS.

[*Tamarind.*]

(*Tamarindi; Tamarinden.*)

The brownish-black pulp of the pods of *Tamarindus indica*. A somewhat tenacious, soft mass containing a small proportion of the seeds, some membranaceous divisions of the seed-cells, tough fibro-vascular bundles, and fragments of brittle, brownish-gray cortical shells, belonging to the fruit. Tamarind Pulp has a strong and purely acid taste.

PULPA TAMARINDORUM DEPURATA.

PURIFIED TAMARIND PULP. GEREINIGTES TAMARINDENMUS.

Soften crude tamarind pulp with hot water to a uniform mass; then pass it through a hair-sieve and evaporate it on a steam-bath to the consistence of a *thick* extract. Afterward mix with each

Five parts of this pulp 5

while still warm,

Powdered Sugar, *one part* 1

It should have a blackish-brown color and an agreeable acid taste. A bright piece of iron immersed in the Pulp, diluted with water, should not acquire a reddish coating within half an hour.

PULVIS AËROPHORUS.

EFFERVESCING POWDER. BRAUSEPULVER.

Bicarbonate of Sodium, *ten parts* 10
Tartaric Acid, *nine parts* 9
Sugar, *nineteen parts* 19

Dry them, separately, in fine powder, at a gentle heat, and then mix them.

A dry powder, dissolving in water with strong effervescence.

PULVIS AËROPHORUS ANGLICUS.

SODA POWDERS. ENGLISHES BRAUSEPULVER.

Each dose consists of

Bicarbonate of Sodium, in powder, *two grammes* 2

and

Tartaric Acid, in powder, *one and a half gramme* 1.5

Dispense the Bicarbonate of Sodium in a colored piece of paper; and the Acid in a white piece of paper.

PULVIS AËROPHORUS LAXANS.

APERIENT EFFERVESCING POWDER. ABFÜHRENDES BRAUSEPULVER.

[*Pulvis Effervescens compositus; Compound Effervescing Powder, U. S. Ph.; Seidlitz Powder.*]

(*Pulvis aërophorus Seydlitzensis; Seydlitz's Pulver.*)

Each dose consists of

Tartrate of Potassium and Sodium, in powder, *seven and a half grammes* 7.5

Bicarbonate of Sodium, in powder, *two and a half grammes*. 2.5

and

Tartaric Acid, *two grammes*..... 2.0

Mix the Salts and dispense them in a colored piece of paper; and dispense the Acid in a white piece of paper.

PULVIS GUMMOSUS.

COMPOUND POWDER OF ACACIA. ZUSAMMENGESETZTES GUMMIPULVER.

Acacia, *fifteen parts*..... 15

Liquorice Root, *ten parts*..... 10

Sugar, *five parts*..... 5

each in fine powder. Mix them.

A dry, yellowish-white powder, having the taste and odor of liquorice root.

PULVIS IPECACUANHÆ OPIATUS.

POWDER OF IPECAC AND OPIUM. DOVER'SCHES PULVER.

[*Pulvis Ipecacuanhæ et Opii, U. S. Ph.; Dover's Powder.*]

(*Pulvis Doweri.*)

Opium, *one part*..... 1

Ipecac, *one part*..... 1

Sugar of Milk, *eight parts*..... 8

each in fine powder. Mix them.

A light brownish powder, having the odor and taste of opium.

It should be cautiously preserved.

PULVIS LIQUIRITIÆ COMPOSITUS.

COMPOUND LIQUORICE POWDER. BRUSTPULVER.

[*Pulvis Glycyrrhizæ Compositus; Compound Powder of Glycyrrhiza, U. S. Ph.*]

(*Pulvis pectoralis Kurellæ*).

Sugar, *six parts*	6
Senna, *two parts*	2
Liquorice Root, *two parts*	2
Fennel, *one part*	1
Washed Sulphur, *one part*	1

each in fine powder. Mix them.

A dry, greenish-yellow powder.

PULVIS MAGNESIÆ CUM RHEO.

POWDER OF MAGNESIA AND RHUBARB. KINDERPULVER.

[*Pulvis Rhei Compositus; Compound Powder of Rhubarb, U. S. Ph.*]

(*Pulvis infantum; Pulvis antacidus.*)

Carbonate of Magnesium, *sixty parts*	60
Oleo-saccharate of Fennel, *forty parts*	40
Rhubarb, *fifteen parts*	15

each in fine powder. Mix them.

A dry powder, yellowish at first, becoming afterward reddish-white, and having the odor of fennel.

PULVIS SALICYLICUS CUM TALCO.

POWDER OF TALC AND SALICYLIC ACID. SALICYLSTREUPULVER.

Salicylic Acid, *three parts*	3
Wheat Starch, *ten parts*	10
Talc, *eighty-seven parts*	87

Mix them to a fine powder.
A white dry powder.

RADIX ALTHÆÆ.

ALTHÆA. EIBISCHWURZEL.

[*Althœa, U. S. Ph.*]

(*Altheewurzel; Althee; Eibischthee.*)

The branches of the root of *Althœa officinalis.* They are upward of 2 decimeters long and 1.5 centimeter thick, deprived of the yellowish-gray corky layer. The white surface has longitudinal ridges, and exhibits brownish scars, and thin, tomentose bundles of bast-fibers. The root yields, with 10 parts of water, a yellowish, mucilaginous infusion of a feeble, peculiar, but neither acidulous nor ammoniacal odor, and of an insipid taste. This infusion, when treated with water of ammonia, acquires a beautiful yellow color; and is not rendered blue by an aqueous solution of iodine; this reaction being, however, produced in a decoction of the root, when cold. When the root is discolored externally or internally, and when it is considerably ligneous, it should not be employed.

RADIX ANGELICÆ.

GARDEN ANGELICA ROOT. ANGELICAWURZEL.

(*Radix Archangelicœ; Engelwurzel; Angelica.*)

The rhizome of *Archangelica officinalis.* Short, up to 5 centimeters thick, beset with the remains of leaves and with the numerous branches of roots [rootlets], which are up to 30 centimeters long and, at their origin, 1 centimeter thick. These branches are longitudinally furrowed and transversely gibbous, having a grayish-brown, or reddish color, the same as the rhizome. The rootlets of the rhizome as commonly occurring in commerce, are plaited downward into a curved tuft. The surface of the rootlets often develops into thin fibrils, and it is sometimes beset with reddish-brown, resiniferous glands. They may be cut like soft wax, and break with a smooth fracture. The thickness of the bark equals, at most, the diameter of the ligneous portion. The bark contains radially arranged, large, balsamiferous cells.

Angelica Root has a strongly aromatic odor and taste.

RADIX COLOMBO.

CALUMBA. COLOMBOWURZEL.

[*Calumba, U. S. Ph.; Colombo.*]

(*Radix Columbo.*)

The yellow root of *Jateorrhiza Calumba*, cut in transverse sections of nearly circular disks, which are upward of 5 centimeters in diameter

and 2 centimeters thick. The root does not often occur divided longitudinally into quarters. The bark of the root is about 5 millimeters thick, covered with a rugose, greenish-brown, corky layer, and is bordered by the dark colored and finely radiated cambian layer. The middle portion of the disk is often coarsely fibrous, and unevenly depressed on both sides. With 5 parts of water Calumba yields a very bitter, light-yellow infusion. The root exhibits large starch granules under the microscope.

RADIX GENTIANÆ.

GENTIAN ROOT. ENZIANWURZEL.

[*Gentiana, U. S. Ph.*]

The rhizomes and branching roots of *Gentiana lutea, Gentiana pannonica, Gentiana purpurea,* and *Gentiana punctata ;* generally split longitudinally. The roots of the first-named species (*G. lutea*) are upward of 6 decimeters long ; and at the upper part nearly 4 centimeters thick. The roots of the other named species are not so large. All of them are brown, prominently wrinkled longitudinally, but more annulated near the top ; many-headed ; not much branched ; breaking with a smooth, not woody or fibrous fracture ; internally reddish-brown or light-brown. The root is very bitter and free from starch.

RADIX HELENII.

INULA. ALANTWURZEL.

[*Inula, U. S. Ph.; Elecampane.*]

(*Radix Enulæ.*)

The rhizome, and branching roots, of *Inula Helenium.* They are split longitudinally ; light-gray and unpeeled. The roots are often 15 centimeters long and 1.5 centimeter thick, and break with a smooth, not woody, fracture. On examining the bark, large oil-cells, and sometimes shining crystalline needles, may be recognized in it. The root is free from starch, has a peculiar, aromatic odor, and a bitter taste.

RADIX IPECACUANHÆ.

IPECAC. BRECHWURZEL.

[*Ipecacuanha, U. S. Ph.*]

The root branches of *Psychotria Ipecacuanha* (*Cephaëlis Ipecacuanha*). They are vermicularly curved, up to 15 centimeters long ; in the middle not more than 5 millimeters thick, becoming thinner toward

both ends, and are mostly simple. Bark gray or brownish-gray, dense, and almost regularly annulated; internally whitish; breaking with a granular fracture. The bark is easily separable from the thin, pale-yellowish, cylindrical, woody portion. It has a nauseous odor, and a disagreeable, bitter taste.

When Ipecac is shaken with 5 times its weight of warm water, and the mixture filtered after one hour, the filtrate yields an abundant, white, amorphous precipitate, on dropping into it a small portion of a solution, made by dissolving 0.332 Gm. of iodide of potassium and 0.454 biniodide of mercury in 100 Gm. of water. When 0.2 Gm. of Ipecac is shaken with 10 Gm. of hydrochloric acid and aqueous solution of iodine added to the filtrate, the latter assumes a blue color; and a fiery-red, when chlorinated lime is sprinkled on the surface.

Ipecac should be cautiously preserved.

RADIX LEVISTICI.

LOVAGE ROOT. LIEBSTÖCKELWURZEL.

The root of *Levisticum officinale.* It is mostly divided longitudinally, from 30 to 40 centimeters long, and 4 centimeters thick; externally pale brownish-gray; furrowed longitudinally, and transversely annulated at the upper part; often crowned with remnants of leaves. The more whitish, internal texture of the bark exhibits, here and there, a brown or reddish-yellow resin. Thin transverse sections of the root swell very much in water. The thickness of the cylindrical, ligneous portion is less than that of the spongy bark, in which may be detected irregular circles of large, balsamiferous cells. The root has a peculiar aromatic odor.

RADIX LIQUIRITIÆ.

LIQUORICE ROOT. SPANISHES SÜSSHOLZ.

[*Glycyrrhiza, U. S. Ph.; Spanish Liquorice Root.*]

(*Radix Glycyrrhizæ Hispanica.*)

The simple stolons of *Glycyrrhiza glabra,* several decimeters in length, 5 to 20 millimeters in thickness, furnished with but few roots. Externally reddish-brown or brownish-gray, wrinkled, at intervals bearing small buds. The transverse section is yellow, radiate, porous but dense, showing a somewhat darker, often angular pith, and a distinctly marked cambian ring. Taste peculiarly sweet.

RADIX LIQUIRITIÆ MUNDATA.

RUSSIAN LIQUORICE ROOT. RUSSISCHES SÜSSHOLZ.

[*Peeled Liquorice Root.*]

(*Radix Liquiritiæ Russica; Radix Glycyrrhizæ echinata.*)

The simple, peeled, yellow roots and stolons of the Russian variety of *Glycyrrhiza glabra* (*Glycyrrhiza glandulifera*). Of very long-fibrous fracture, the cross-section exhibiting a coarsely radiate, very loose structure; generally much more than 1 centimeter in thickness, but usually not over 3 decimeters in length. Of a peculiarly sweet taste.

RADIX ONONIDIS.

REST-HARROW ROOT. HAUHECHELWURZEL.

The root of *Ononis spinosa*. About a foot long, mostly from 1 to 2 centimeters thick, much curved, longitudinally cleft, loosely fibrous, compressed, and twisted around its axis; ending above in many rudimentary stems. Externally gray or grayish-brown; the inner texture white and tough. The transverse section shows a very irregular circumference, numerous rays of unequal length, and a firmly adhering bark, less than 1 millimeter in thickness. Taste acrid, somewhat astringent and sweetish, odor feeble, recalling that of liquorice root.

RADIX PIMPINELLÆ.

PIMPINEL ROOT. BIBERNELLWURZEL.

The rhizome with its roots, as well as the separate roots, of *Pimpinella Saxifraga* [Burnet Saxifrage] and *Pimpinella magna* [Great Pimpinel]. The annulated, many-headed rhizome, sometimes supporting the remnants of petioles and stems, divides, below, into wrinkled and gibbous roots, up to 2 decimeters long and 15 millimeters thick. On a transverse section, the yellow, cylindrical, woody portion is seen to have about the same thickness as the white bark, which contains large lacunæ near the surface, and is traversed by numerous rows of brownish-yellow balsam-cells, radially arranged. It is readily cut, and has a sharp, aromatic, and very peculiar odor and taste.

RADIX RATANHIÆ.

KRAMERIA. PERUANISCHE RATANHIA.

[*Krameria, U. S. Ph.; Peruvian Rhatany.*]

The root-branches of *Krameria triandra*, several decimeters long, and up to about 3 centimeters thick. Woody portion externally brown-

ish-red, internally whitish, covered with a short-fibrous bark which is about 1 millimeter thick, not warty, of a dark reddish-brown color, leaving a brown mark when rubbed on paper. The bark exfoliates from the larger root-branches by transverse fissures. The bark, but not the wood, has a very astringent taste.

When the bark is shaken with 300 parts of water, it yields a brownish infusion which is colored green on the addition of ferric chloride, and shortly afterward deposits a brownish sediment. When 1 part of the bark is shaken with 1 part of finely powdered iron and 300 parts of water, the liquid assumes a reddish-brown, but not a violet color, after 4 hours.

RADIX RHEI.

RHUBARB. RHABARBER.

[*Rheum, U. S. Ph.*]

The peeled, often irregularly trimmed, rhizomes of different species of *Rheum*, probably for the most part of *Rheum officinale*, growing in High-Asia. The texture of Rhubarb is very dense, and is seen, in freshly broken pieces, to be a granular, not fibrous, shining-white mass, traversed by brownish-red, medullary rays. The latter are irregularly disposed in the central portion, but toward the exterior they form radial rings, not more than 1 centimeter in diameter. They are arranged in regular radial order only in the very thin, outermost layer.

Odor and taste of Rhubarb is very peculiar.

RADIX SARSAPARILLÆ.

SARSAPARILLA. SARSAPARILLE.

[*Sarsaparilla, U. S. Ph.*]

(*Radix Salsaparillæ; Radix Sassaparillæ.*)

The root imported under the name of Honduras Sarsaparilla, derived from Central American species of *Smilax*. Only those roots which are up to about 7 decimeters long, and 4 millimeters thick, and which are freed from the rhizome, should be employed. Sarsaparilla is almost regularly cylindrical, in part longitudinally furrowed, generally not branched; brownish-gray, or sometimes nearly reddish-yellow externally. The compact, brown, narrow, circular zone of the inner bark, as seen on a transverse section, is surrounded by the much wider, purely white texture of the bark, rich in starch. Sarsaparilla has a mucilaginous, afterward acrid taste.

RADIX SENEGÆ.

SENEGA ROOT. SENEGAWURZEL.

[*Senega, U. S. Ph.*]

The root of *Polygala Senega*, consisting of the tuberous, knotty crown with its numerous remnants of stems and reddish leaf-scales; together with the roots which are annulated above, and at most 1.5 centimeter thick; and their slightly spreading, simple branches, up to 2 decimeters in length. Bark yellow, with a projecting keel extending along and winding around the root. Opposite the keel, the bark is generally marked with transverse ridges. When the bark, which is not more than 1 millimeter thick, is removed, the woody cylinder is seen to be devoid of pith, and in many places fissured and excavated. Senega Root is free from starch; the odor is somewhat rancid; the taste sharply acrid.

RADIX TARAXACI CUM HERBA.

TARAXACUM. LÖWENZAHN.

The whole plant of *Taraxacum officinale* collected in the spring, before flowering, and dried.

RADIX VALERIANÆ.

VALERIAN. BALDRIANWURZEL.

[*Valeriana, U. S. Ph.*]

(*Radix Valerianæ minoris vel montanæ.*)

The rhizome of *Valeriana officinalis*. Somewhat tuberous, erect, up to 2 centimeters in thickness and 4 centimeters in length, premorse by decay, furnished with numerous grayish-brown or brownish-yellow rootlets, at most 2 millimeters thick, and 2 decimeters, or upward, long; the larger rhizomes are marked internally with transverse septa. A transverse section of the rootlets exhibits the thin, cylindrical, woody part, surrounded by a white bark four times its thickness. Odor strong and peculiar; taste aromatic, sweetish and very slightly bitter.

RESINA DAMMAR.

DAMMAR RESIN. DAMMARHARZ.

A resin obtained from *Dammara alba* (*Agathis alba*), *Dammara orientalis*, *Hopea micrantha*, *Hopea splendida*, and probably from other trees growing in Southern India. Yellowish-white, transparent, stalac-

tiform tears ; or large, partly pear-shaped and partly club-shaped pieces, several centimeters in diameter or in irregular masses. Dammar scratches colophonium and, when triturated, yields a white, inodorous powder, which does not become soft when heated to 100° C.

It dissolves abundantly in ether, chloroform, or disulphide of carbon ; more sparingly in alcohol and petroleum benzin.

RESINA JALAPÆ.

RESIN OF JALAP. JALAPENHARZ.

Jalap, in coarse powder, *one part* 1
Alcohol, *four parts* 4

Digest for 24 hours, stirring frequently, and when cold, express. Then pour upon the residue

Alcohol, *two parts* 2

and operate in the same manner as before.

Mix and filter the expressed liquids, distil off the alcohol ; then wash the remaining resin with warm water until the water runs off colorless. Finally, dry the resin on a steam-bath, while stirring, until, when cold, it has become friable.

Resin of Jalap should have a brown color, and should be readily reduced to powder ; the thin edges of its fragments are shining and translucent. It dissolves freely in alcohol ; but is insoluble in disulphide of carbon. It dissolves in 5 parts of warm water of ammonia ; the solution should not gelatinize on cooling, and should remain clear, when supersaturated with acids. The ammoniacal solution, when evaporated without being supersaturated, should leave a residue soluble in water.

It should be **cautiously** preserved.

RHIZOMA CALAMI.

CALAMUS. CALMUSWURZEL.

[*Calamus, U. S. Ph.; Sweet Flag.*]

(*Radix Calami.*)

The unpeeled rhizome of *Acorus Calamus*, freed from rootlets, leaf-sheaths, and the scapes, and up to 2 decimeters in length. On the upper side it is divided by leaf-scars into triangular, gray spots, which alternate with the brownish sections of the trunk. The lower surface is marked with the dark-brown, sharp-cornered scars of the rootlets, arranged in a zig-zag manner, and only slightly raised above the brown, longitudinally wrinkled bark. The transverse section of the rhizome is brownish, elliptical in form, and about 1.5 centimeter in diameter,

showing the cylinder of fibro-vascular bundles to be surrounded by the usually darker colored bark, which has only about one-third the thickness of the cylinder. Calamus has a peculiar, aromatic, and bitter taste.

RHIZOMA FILICIS.

ASPIDIUM. FARNWURZEL.

[*Aspidium, U. S. Ph.; Male Fern.*]

(*Radix Filicis maris; Wurmfarnwurzel; Farnkrautwurzel.*)

The unpeeled rhizome of *Aspidium Filix-mas*, together with the base of the stipes, but freed from the chaffy scales and the rootlets. The rhizome should be collected in the fall of the year. The angular, curved stipe-remnants, several centimeters long, and about 1 centimeter thick, show, on a transverse fracture, in the greenish, mealy texture, about 8 sharply circumscribed, fibro-vascular bundles; the trunk exhibiting a somewhat larger number of the same. Male Fern has a sweetish, sharp and somewhat astringent taste, and scarcely any odor. It must be renewed each year.

RHIZOMA GALANGÆ.

GALANGAL ROOT. GALGANTWURZEL.

(*Radix Galangæ.*)

Reddish-brown, cylindrical pieces of the coarse-woody rhizome of *Alpinia officinarum*. The pieces are knee-shaped, up to 7 centimeters long, often somewhat tuberous, reaching a thickness of 2 centimeters; ending in from 2 to 4 rough, fibrous, cut surfaces. Rarely furnished with remains of stems; the circular leaf-marks having a light-colored fringe. The larger portion of the brown, transverse section consists of the bark, which is thicker than the slightly darker cylinder of fibro-vascular bundles.

Galangal has a very aromatic odor and taste.

RHIZOMA GRAMINIS.

TRITICUM. QUECKENWURZEL.

[*Triticum, U. S. Ph.; Couch-Grass.*]

(*Radix Graminis.*)

The cut, straw-like rhizome of *Triticum repens*. In sections of about 5 millimeters in length and 3 millimeters in thickness; shining, pale-yellow and angular; exhibiting a hollow, narrow ring of fibro-vascular bundles inside of the texture of the bark, which latter is free from starch. It has a sweetish taste.

RHIZOMA IMPERATORIÆ.

MASTERWORT. MEISTERWURZEL.

(*Ostritzwurzel.*)

The branched, grayish-brown, somewhat tuberous rhizome of *Imperatoria Ostruthium;* main trunk up to 1 decimeter long and 1.5 centimeter thick, closely annulated and warty, furnished with smaller rootlets, and woody stolons up to 5 millimeters thick. The transverse section of the main trunk exhibits a yellow, woody ring, about 1 millimeter broad, enclosing a thick pith; the woody ring being surrounded by a somewhat thicker, radiated bark. The rhizome, and more especially the texture of the pith, contains numerous balsam-cells. Masterwort has a strong, peculiar, aromatic odor and taste.

RHIZOMA IRIDIS.

ORRIS ROOT. VEILCHENWURZEL.

[*Iris Root.*]

(*Radix Iridis Florentinæ.*)

The rhizomes of *Iris germanica*, *Iris pallida*, and *Iris florentina;* freed from the stems, leaves, rootlets, and exterior coating. They consist of 3 to 5 annual shoots, either in one row, or in forked branches, divided by the constrictions of the depressed stem-scars. The rhizomes are white, up to 15 centimeters long and 4 centimeters thick, broadly annulated; marked at the under surface with brownish scars corresponding to the place of attachment of the roots. A cross-section of the rhizome shows a bark 2 millimeters thick, separated by the thin, inner bark from the pale yellowish cylinder of fibro-vascular bundles. Odor resembling that of the violet; taste somewhat acrid, scarcely aromatic.

RHIZOMA TORMENTILLÆ.

TORMENTIL. TORMENTILLWURZEL.

[*Tormentilla Root.*]

(*Radix Tormentillæ; Ruhrwurzel.*)

The rhizome of *Potentilla Tormentilla.* Ruggedly knotty, up to 8 centimeters long and 2.5 centimeters thick; mostly freed from the long rootlets which are 2 millimeters and upward in thickness. The hard, woody, reddish-brown texture is traversed by very coarse, white wood-bundles. The rhizome is inodorous; with 40 times its weight of water it yields a brown infusion of an astringent taste; this liquid is colored bluish-black on the addition of a little ferrous sulphate, and throws down a dark-violet precipitate, on the addition of lime-water.

RHIZOMA VERATRI.

WHITE HELLEBORE. WEISSE NIESWURZEL.

(*Radix Veratri albi; Radix Hellebori albi; Krätzwurzel.*)

The dark-brown, straight rhizome of *Veratrum album*, up to 8 centimeters long, and up to 25 millimeters thick, together with the yellowish rootlets, which are at most 3 decimeters long and 3 millimeters thick. A transverse section of the rhizome exhibits, near the outer surface, a thin, brownish, dentate, inner bark, which encloses a coarse, whitish texture, rich in starch. This is irregularly traversed by numerous, short, fibro-vascular bundles. The rhizome and rootlets have a persistently bitter and acrid taste.

It should be **cautiously** preserved.

RHIZOMA ZEDORARIÆ.

ZEDOARY. ZITWERWURZEL.

(*Radix Zedoariæ.*)

The tuberous rhizome of *Curcuma Zedoaria*, cut into circular disks or into longitudinal quarters. The former are up to 4 centimeters in diameter, and about 1 centimeter thick. The light-gray bark, only 5 millimeters thick, does not adhere firmly to the fibro-vascular cylinder, which is somewhat sunken, often lighter than the bark, but not yellow, and sharply bounded by the inner bark. The odor and taste of Zedoary is camphoraceous and bitter.

RHIZOMA ZINGIBERIS.

GINGER. INGWER.

[*Zingiber, U. S. Ph.*]

(*Radix Zingiberis.*)

The rhizome of *Zingiber officinale*. Palmately branched, flattened on the sides, 2 centimeters broad, deprived of the corky layer, at least on the usually knob-like, lobed sides; at other parts longitudinally wrinkled, and distantly annulated. The granular fracture shows numerous brown oil-cells, equally distributed through the gray texture of the bark, which is only 1 millimeter thick, and through the cylinder of fibro-vascular bundles, which is 2.5 centimeters in diameter, and is seen to have an elliptical form, in a transverse section. Ginger is very strongly aromatic.

ROTULÆ MENTHÆ PIPERITÆ.

TROCHES OF PEPPERMINT. PFEFFERMINZPLÄTZCHEN.

[*Peppermint Lozenges.*]

(*Pfefferminzkuchen.*)

Plain Sugar Lozenges, *two hundred parts*..... 200
Moisten them with a mixture of
Oil of Peppermint, *one part* 1
and
Alcohol, *two parts* 2

SACCHARUM.

SUGAR. ZUCKER.

(*Rohrzucker.*)

White, crystalline pieces, or a white crystalline powder, yielding, with half its weight of water and without leaving a residue, a colorless and odorless syrup which has a purely sweet taste, and forms clear mixtures with alcohol in all proportions. Neither an aqueous nor an alcoholic solution of sugar should affect litmus paper. An aqueous solution (1=20) should scarcely be rendered turbid by nitrate of silver or nitrate of barium.

SACCHARUM LACTIS.

SUGAR OF MILK. MILCHZUCKER.

Whitish crystals, or a white crystalline powder, soluble in 7 parts of water at 15° C., and in an equal weight of boiling water, forming a liquid which has no syrupy consistence, and has a faintly sweet taste. A boiling solution of 4 Gm. of carbonate of sodium in 4 Gm. of water turns yellow on the addition of 0.2 Gm. of Sugar of Milk ; and 0.2 Gm. of subnitrate of bismuth, if added to this solution afterward, the boiling being continued 5 minutes longer, is rendered black. In a hot mixture of 4 Gm. of solution of subacetate of lead and 2 Gm. of water of ammonia, 0.2 Gm. of Sugar of Milk throws down a purely white, but no red precipitate. When 1 Gm. of sulphuric acid is spread out on a flat surface, and then sprinkled with Sugar of Milk, not more than a slightly red, but no brownish-black color should appear within an hour.

SAL CAROLINUM FACTITIUM.

ARTIFICIAL CARLSBAD SALT. KÜNSTLICHES KARLSBADER SALZ.

Dried Sulphate of Sodium, *forty-four parts* 44
Sulphate of Potassium, *two parts* 2
Chloride of Sodium, *eighteen parts* 18
Bicarbonate of Sodium, *thirty-six parts* 36
each in fine powder. Mix them.

A white, dry powder.

A water similar to the Carlsbad mineral water is prepared by dissolving 6 Gm. of the Salt in 1 liter of water.

SANTONINUM.

SANTONIN. SANTONIN.

(*Acidum santonicum; Santonsäure.*)

Colorless, tabular crystals, fusing at 170° C., having a bitter taste and acquiring a yellow color when exposed to the light. Santonin is soluble in 5,000 parts of water, in 44 parts of alcohol, and in 4 parts of chloroform. When 5 parts of Santonin are boiled, for a considerable time, with 4 parts of carbonate of sodium, 60 parts of alcohol, and 20 parts of water, the liquid alternately changes from a red to a yellow color.

When 1 part of Santonin is boiled in 100 parts of water, mixed with 5 parts of diluted sulphuric acid, and the solution filtered some time after cooling, the filtrate should have no bitter taste, and yield no precipitate on the addition of a few drops of test-solution of chromate of potassium.

Santonin should be **cautiously** preserved and excluded from the light.

Largest single dose ..... **0.1 Gm.**
Largest daily dose ..... **0.3 Gm.**

SAPO JALAPINUS.

JALAP SOAP. JALAPENSEIFE.

Dissolve
Resin of Jalap, *four parts* 4
and
Medicinal Soap, *four parts* 4
in
Diluted Alcohol, *eight parts* 8
and evaporate on a steam-bath, stirring constantly, to
Nine parts 9

Jalap Soap should have a yellowish-brown color, and should be soluble in alcohol. It should afford, with from 2 to 3 parts of water, a turbid, and with from 10 to 20 parts of water, a nearly clear solution, from which no resin separates.

SAPO KALINUS.

POTASSA SOAP. KALISEIFE.

[*Soft Soap.*]

To

Solution of Potassa, *one hundred and thirty-five parts*..... 135

heated on a steam-bath, add gradually

Linseed Oil, *one hundred parts*..... 100

stirring constantly, and continue heating the mixture for half an hour; then add

Alcohol, *twenty-five parts*..... 25

and, as soon as the mass has assumed a uniform consistence, add gradually

Water, *two hundred parts*..... 200

and heat until a transparent, viscid soap is formed, which dissolves in hot water without the separation of oil. Continue heating by means of the steam-bath until the alcohol is all evaporated, and the finished product amounts, by weight, to

One hundred and fifty parts..... 150

A brownish-yellow, transparent, soft, lubricous mass, having a feeble, but no disagreeable odor; free from granular admixture; soluble in water and in alcohol.

This Soap should always be dispensed, when *Sapo Kalinus venalis* is not expressly ordered.

SAPO KALINUS VENALIS.

COMMON POTASH SOAP. SCHMIERSEIFE.

[*Sapo Viridis; Green Soap, U. S. Ph.; Common Soft Soap.*]

(*Sapo niger; Sapo viridis; Grüne Seife.*)

SAPO MEDICATUS.

MEDICINAL SOAP. MEDICINISCHE SEIFE.

Heat, by means of a steam-bath,

Solution of Soda, *one hundred and twenty parts*..... 120

Add gradually a previously melted mixture of

Lard, *fifty parts* 50

and

Olive Oil, *fifty parts* 50

Stir and heat the mixture for half an hour ; then add

Alcohol, *twelve parts* 12

and, as soon as the mass has assumed a uniform consistence, add gradually

Water, *two hundred parts* 200

Then continue the heat, adding, if necessary, small portions of solution of soda, until a transparent, viscid soap is formed, which dissolves in hot water without the separation of oil.

Finally, add a filtered solution of

Chloride of Sodium, *twenty-five parts* 25

Commercial Carbonate of Sodium, *three parts* 3

Water, *eighty parts* 80

and continue the heat, stirring constantly, until the soap has wholly separated from the liquid.

[After some time] separate the soap from the mother-lye, wash it several times with a little water ; then express it [in a cloth] slowly, but forcibly and, having cut it into cakes, dry them in a warm place.

The Soap should be white and free from rancidity ; soluble in water, and in alcohol.

The aqueous or alcoholic solution of the Soap should not be affected by hydrosulphuric acid, and yield no colored precipitate with mercuric chloride.

SATURATIONES.

NEUTRAL MIXTURES. SATURATIONEN.

When a Neutral Mixture, *Saturatio*, is prescribed without mention of the ingredients, the Solution of Citrate of Sodium, *Potio Riveri*, is to be dispensed.

SEBUM OVILE.

MUTTON SUET. HAMMELTALG.

[*Sevum ; Suet, U. S. Ph.*]

(*Talg.*)

The white, solid fat of *Ovis Aries*, melting at about 47° C., having a peculiar, but no rancid odor. When 1 part is warmed and shaken with 1 part of alcohol, the clear liquid, poured off after cooling, should re-

main clear after the addition of an equal amount of water, and should not change the color of litmus paper. Suet dissolves slowly in double its weight of petroleum benzin, but, after standing for some time in a closed bottle, the greater part separates in a crystalline form.

SECALE CORNUTUM.

ERGOT. MUTTERKORN.

[*Ergota, U. S. Ph.; Ergot of Rye.*]

The fungus *Claviceps purpurea*, collected while its development is quiescent. Roundish-triangular, often curved; at most 40 millimeters long and 6 millimeters thick. Its dark-violet or black sides, lighter at the base and often depressed, are usually deeply fissured, the fissures extending into the white or reddish, interior texture, which is hard, and has an insipid taste. An infusion of 1 part of powdered Ergot in 10 parts of hot water diffuses the peculiar odor of Ergot, but should have no rancid or ammoniacal odor. Powdered Ergot should only be employed after it has been completely exhausted by ether.

Largest single dose ..... **1.0 Gm.**
Largest daily dose ..... **5.0 Gm.**

SEMEN COLCHICI.

COLCHICUM SEEDS. ZEITLOSENSAMEN.

[*Colchici Semen, U. S. Ph.*]

The seeds of *Colchicum autumnale*. Almost globular, up to 3 millimeters thick, very finely pitted, and somewhat pointed by a strophiole. The hard, brown testa encloses a radiated, gray albumen with a very small embryo. The seeds have a very bitter taste.

Colchicum Seeds should be cautiously preserved.

SEMEN FÆNUGRÆCI.

FENUGREEK. BOCKSHORNSAMEN.

The seeds of *Trigonella Fœnum græcum*. They are yellowish-gray or brownish, flat-rhomboidal or irregularly round, 3 to 5 millimeters long, about 2 millimeters thick; often divided by a nearly diagonal furrow into two unequal parts, the smaller one bearing, upon its flat surface and curved upward near its edge, the thick radicle of the yellow embryo, which, when soaked in water, may be stripped of its colorless, coarse and mucilaginous membrane, and from the thin, tenacious, yellowish testa. All the textures of the seed are free from starch. Fenugreek has a peculiar, unpleasant taste, often accompanied by a bitter after-taste, and a very peculiar odor.

SEMEN LINI.

FLAXSEED. LEINSAMEN.

[*Linum, U. S. Ph.; Linseed.*]

The seeds of *Linum usitatissimum.* Testa of the seed brownish or yellowish, thin, shining, ovate in form, convex on both sides, 4 to 6 millimeters long and obtusely umbilicated; the white or somewhat greenish texture of the albumen and of the embryo of linseed are free from starch, and have a mild, oily, but no rancid taste.

SEMEN MYRISTICÆ.

NUTMEG. MUSCATNUSS.

[*Myristica, U. S. Ph.*]

(*Nux moschata.*)

The kernel of the seed of *Myristica fragrans.* Obtuse-ovate or nearly globular, about 3 centimeters long and 2 centimeters in diameter. Externally brownish, wrinkled, dusted with a light gray powder, usually marked with a shallow furrow on the less convex side. A cross-section of Nutmeg is divided into irregular spaces or spots, by the projection of brown veins through the whitish, mealy texture. Taste and odor are aromatic.

SEMEN PAPAVERIS.

POPPY SEEDS. MOHNSAMEN.

(*Mohn.*)

The seeds of *Papaver somniferum.* Whitish, kidney-shaped, 1 millimeter long, with highly convex and delicately net-veined sides. Testa thin, tough, enclosing the white texture of the albumen and embryo, which are free from starch, and have a mild, oily taste.

SEMEN SINAPIS.

BLACK MUSTARD SEED. SENFSAMEN.

[*Sinapis nigra, U. S. Ph.*]

(*Senf.*)

The seeds of *Brassica nigra.* Through the thin, brown or gray, furfuraceous testa, may be recognized the radicle, curved upward, in the channel formed by the overlapping of the cotyledons. The seeds are

almost globular, 1 millimeter in diameter, finely reticulate and pitted. When chewed, the taste at first is bland, oily, and slightly acidulous, but soon becomes very pungent and acrid. When the seeds are rubbed with water, a yellow emulsion is formed, having an acid reaction and exhaling a sharp, pungent odor. When powdered mustard is boiled with 50 times its weight of water, the cold filtrate should not be colored blue by an aqueous solution of iodine.

SEMEN STRYCHNI.

NUX VOMICA. STRYCHNOSSAMEN.

[*Nux Vomica, U. S. Ph.*]

(*Krähenaugen; Brechnuss.*)

The seeds of *Strychnos Nux vomica*. About 25 millimeters in diameter, and at most 5 millimeters in thickness; disk-shaped and often somewhat twisted; covered with soft, shining, yellowish-gray, or sometimes greenish, lustrous hairs. When soaked in water, the seed separates along the marginal line, which has often a somewhat sharpened edge, into the two halves of the horny albumen, which enclose the two thin cotyledons, 5 millimeters long; and also the club-shaped radicle. The albumen is free from starch. Nux Vomica has a very bitter taste.

It should be cautiously preserved.

Largest single dose	**0.1 Gm.**
Largest daily dose	**0.2 Gm.**

SPECIES.

SPECIES. THEEGEMISCHE.

[*Tea Mixtures.*]

The substances intended for Species, or Tea Mixtures, should be reduced to a uniform fineness by cutting, rasping, or bruising, and the fine powder, produced during the operation, rejected.

The Tea Mixtures for infusions or decoctions should pass through a sieve having meshes of 4 to 6 millimeters in diameter; those intended for herb-bags or cushions, should pass through a sieve having meshes of 2 to 3 millimeters. Species for cataplasms should be in the form of coarse powder.

SPECIES AROMATICÆ.

AROMATIC SPECIES. GEWÜRZHAFTE KRÄUTER.

[*Aromatic Herbs.*]

(*Aromatische Kräuter.*)

Peppermint, *two parts*	2
Wild Thyme, *two parts*	2
Garden Thyme, *two parts*	2
Lavender Flowers, *two parts*	2
Cloves, *one part*	1
Cubebs, *one part*	1

Mix them.

SPECIES EMOLLIENTES.

EMOLLIENT SPECIES. ERWEICHENDE KRÄUTER.

[*Emollient Cataplasm.*]

(*Umschlagkräuter.*)

Althæa Leaves, *one part*	1
Mallow Leaves, *one part*	1
Melilot, *one part*	1
Matricaria, *one part*	1
Flaxseed, *one part*	1

Reduce them to a coarse powder, and mix.

SPECIES LAXANTES.

LAXATIVE TEA. ABFÜHRENDER THEE.

[*St. Germain Tea.*]

(*Saint-Germainthee.*)

Senna, *sixteen parts*	16
Elder Flowers, *ten parts*	10
Fennel, *five parts*	5
Anise, *five parts*	5
Bitartrate of Potassium, *four parts*	4

Moisten the Senna, previously cut; sprinkle it as uniformly as possible with the Bitartrate of Potassium, and mix. When it has become dry, add the other substances and mix the whole together.

SPECIES LIGNORUM.

WOOD TEA. HOLZTHEE.

Guaiacum Wood, *five parts*	5
Rest-harrow Root, *three parts*	3
Russian Liquorice Root, *one part*	1
Sassafras Wood, *one part*	1

Mix them.

SPECIES PECTORALES.

PECTORAL TEA. BRUSTTHEE.

(*Species ad infusum pectorale.*)

Althæa, *eight parts*	8
Russian Liquorice Root, *three parts*	3
Orris Root, *one part*	1
Coltsfoot, *four parts*	4
Mullein Flowers, *two parts*	2
Anise, *two parts*	2

Mix them.

SPIRITUS.

ALCOHOL. WEINGEIST.

[*Alcohol, U. S. Ph.*[1]]

(*Spiritus Vini rectificatissimus; Alcohol Vini.*)

A colorless, transparent, volatile liquid; readily inflammable, burning with a pale flame, having a neutral reaction, a peculiar odor, and a burning taste.

Specific gravity from 0.830 to 0.834, corresponding to a percentage of 90 to 91.2 by volume, and of 85.6 to 87.2 by weight, of absolute alcohol.

It should form clear mixtures with water in all proportions. When 50 Gm. of Alcohol are mixed with 10 drops of solution of potassa, then evaporated to about 5 Gm., and the residue supersaturated with diluted sulphuric acid, the odor of fusel oil should not be evolved.

When a layer of Alcohol is carefully poured upon an equal volume of sulphuric acid in a test-tube, no rose-red zone should appear between the two liquids. When 10 Gm. are mixed with 20 drops of volumetric solution of permanganate of potassium, the red color of the

[1] *Alcohol, U. S. Ph.*, has the specific gravity 0.820 at 15.6° C.—*Translator.*

liquid should not turn to yellow for a considerable time (not within 20 minutes). Alcohol should not be colored by hydrosulphuric acid, or by water of ammonia ; nor should it leave a residue on evaporation.

SPIRITUS ÆTHEREUS.

SPIRIT OF ETHER. ÆTHERWEINGEIST.

[*Spiritus Ætheris, U. S. Ph.*]

(*Liquor anodynus mineralis Hoffmanni ; Hoffmann's Tropfen.*)

Ether, *one part*	1
Alcohol, *three parts*	3

Mix them.

A transparent, colorless, neutral, completely volatile liquid. Specific gravity 0.807 to 0.811. When shaken with an equal volume of solution of acetate of potassium, in a graduated glass vessel, the Spirit of Ether should separate one-half its volume of an ethereal liquid.

SPIRITUS ÆTHERIS NITROSI.

SPIRIT OF NITROUS ETHER. VERSÜSSTER SALPETERGEIST.

[*Sweet Spirit of Nitre.*]

(*Spiritus nitri dulcis ; Spiritus nitrico-æthereus ; Spiritus nitroso-æthereus.*)

Alcohol, *forty-eight parts*	48
Nitric Acid, *twelve parts*	12

Mix them, and let the mixture stand for 12 hours. Then, by means of a glass retort, distil 40 parts ; and, having neutralized the distillate with magnesia, after 24 hours redistil it on the water-bath.

A clear, colorless, or yellowish liquid of an agreeable, ethereal odor and sweetish, burning taste. It is entirely volatile, and forms clear mixtures with water. Specific gravity 0.840 to 0.850. When it is mixed with a freshly prepared, concentrated solution of ferrous chloride, a brownish-black liquid is formed. Ten Gm. of the Spirit, after being mixed with 3 drops of volumetric solution of potassa, should have no acid reaction. Spirit of Nitrous Ether should be preserved with the addition of a few crystals of tartrate of potassium.

SPIRITUS ANGELICÆ COMPOSITUS.

COMPOUND SPIRIT OF ANGELICA. ZUSAMMENGESEZTER ANGELICA-SPIRITUS.

(*Spiritus theriacalis; Angelica Spiritus; Theriakgeist.*)

Angelica Root, cut, *sixteen parts*	16
Valerian, cut, *four parts*	4
Juniper Berries, bruised, *four parts*	4
Alcohol, *seventy-five parts*	75
Water, *one hundred and twenty-five parts*	125

Macerate for 24 hours; then distil off

One hundred parts	100

and dissolve in the distillate

Camphor, *two parts*	2

A clear, colorless liquid. Specific gravity 0.890 to 0.900.

SPIRITUS CAMPHORATUS.

SPIRIT OF CAMPHOR. CAMPHERSPIRITUS.

[*Spiritus Camphoræ, U. S. Ph.*]

Camphor, *one part*	1
Alcohol, *seven parts*	7
Water, *two parts*	2

Dissolve the Camphor, without heat, in the Alcohol, and then add the Water.

A clear, colorless liquid, having a strong odor and taste of camphor and alcohol. The camphor separates from the liquid in flakes on the addition of water. Specific gravity 0.885 to 0.889.

SPIRITUS COCHLEARIÆ.

SPIRIT OF SCURVY-GRASS. LÖFFELKRAUTSPIRITUS.

Scurvy-grass, *eight parts*	8
Alcohol, *three parts*	3
Water, *three parts*	3

Cut the fresh, flowering Scurvy-grass, mix it with the Alcohol and Water and distil off

Four parts	4

A clear, colorless liquid of a peculiar odor, and sharp, pungent taste. Specific gravity 0.908 to 0.918.

If a solution of 0.1 Gm. of acetate of lead in 5 C.c. of water is mixed

with 5 C.c. of Spirit of Scurvy-grass, and enough solution of potassa is added to redissolve the precipitate of lead at first thrown down, the mixture should assume a dark color when heated to boiling, and should speedily separate a black precipitate.

SPIRITUS DILUTUS.

DILUTED ALCOHOL. VERDÜNNTER WEINGEIST.

[*Alcohol Dilutum, U. S. Ph.*[1]]

(*Spiritus Vini rectificatus.*)

Alcohol, *seven parts*	7
Water, *three parts*	3

Mix them.

Diluted Alcohol contains 67.5 to 69.1 per cent. of absolute alcohol by volume, or 59.8 to 61.5 by weight. It should be a clear, colorless liquid having a specific gravity of 0.892 to 0.896.

SPIRITUS FORMICARUM.

SPIRIT OF FORMIC ACID. AMEISENSPIRITUS.

Alcohol, *seventy parts*	70
Water, *twenty-six parts*	26
Formic Acid, *four parts*	4

Mix them.

A clear, colorless liquid of an acid reaction. It deposits white, feathery crystals of formate of lead on the addition of solution of subacetate of lead ; and throws down metallic silver from a solution of nitrate of silver, on warming. Specific gravity 0.894 to 0.898.

SPIRITUS JUNIPERI.

SPIRIT OF JUNIPER. WACHOLDERSPIRITUS.

Juniper Berries, *five parts*	5
Alcohol, *fifteen parts*	15
Water, *fifteen parts*	15

Bruise the Juniper Berries, macerate them in the Alcohol and Water for 24 hours, then distil off 20 parts.

A clear, colorless liquid, having the odor and taste of its ingredients. Specific gravity 0.895 to 0.905.

[1] *Alcohol Dilutum, U. S. Ph.*, has the specific gravity 0.928 at 15.6° C.—*Translator.*

SPIRITUS LAVANDULÆ.

SPIRIT OF LAVENDER. LAVENDELSPIRITUS.

Lavender Flowers, *five parts*	5
Alcohol, *fifteen parts*	15
Water, *fifteen parts*	15

Macerate for 24 hours; then distil off

Twenty parts	20

A clear, colorless liquid of the agreeable odor of lavender flowers. Specific gravity 0.895 to 0.905.

SPIRITUS MELISSÆ COMPOSITUS.

COMPOUND SPIRIT OF BALM. CARMELITERGEIST.

Balm Leaves, *fourteen parts*	14
Lemon Peel, *twelve parts*	12
Nutmeg, *six parts*	6
Cinnamon, *three parts*	3
Cloves, *three parts*	3

Having cut or bruised the ingredients, pour upon them

Alcohol, *one hundred and fifty parts*	150
Water, *two hundred and fifty parts*	250

and distil off

Two hundred parts	200

A clear, colorless liquid of an aromatic odor and taste. Specific gravity 0.900 to 0.910.

SPIRITUS MENTHÆ PIPERITÆ.

SPIRIT OF PEPPERMINT. PFEFFERMINZSPIRITUS.

Oil of Peppermint, *one part*	1
Alcohol, *nine parts*	9

Mix them.

A clear, colorless liquid, having a strong odor and taste of peppermint. Specific gravity 0.836 to 0.840.

SPIRITUS SAPONATUS.

SPIRIT OF SOAP. SEIFENSPIRITUS.

Olive Oil, *sixty parts*	60
Solution of Potassa, *seventy parts*	70
Alcohol, *three hundred parts*	300
Water, *one hundred and seventy parts*	170

Boil the Oil and Solution of Potassa with one-fourth of the Alcohol, on a water-bath, until the Oil is saponified, and a small portion of the liquid is found, on trial, to form a clear mixture with alcohol and water. Now replace any Alcohol lost by evaporation, add the remaining three-fourths of the Alcohol and the Water, and filter the liquid when cold.

A clear, yellow liquid of an alkaline reaction, foaming strongly when shaken with water. Specific gravity 0.925 to 0.935.

SPIRITUS SINAPIS.

SPIRIT OF MUSTARD. SENFSPIRITUS.

Dissolve

Volatile Oil of Mustard, *one part*	1

in

Alcohol, *forty-nine parts*	49

A clear, colorless liquid having the odor of oil of mustard. Specific gravity 0.833 to 0.837.

SPIRITUS VINI COGNAC.

BRANDY. COGNAC.

[*Spiritus Vini Gallici, U. S. Ph.*]

A product obtained from wine by distillation. A clear, yellow liquid of an agreeable, spirituous odor and taste. The spirit obtained from it by distillation should be free from fusel oil, and have no acid reaction. Specific gravity 0.920 to 0.924. It should contain from 46 to 50 per cent. of absolute alcohol by weight.

STIBIUM SULFURATUM AURANTIACUM.

GOLDEN SULPHIDE OF ANTIMONY. GOLDSCHWEFEL.

[*Antimonium Sulphuratum; Sulphurated Antimony, U. S. Ph.*]

(*Sulphur auratum antimonii; Sulphur stibiatum aurantiacum.*)

A fine, orange-yellow, inodorous powder. When it is heated in a test-tube, sulphur sublimes, and a residue of black sulphide of antimony is left.

When shaken with 20 parts of water it yields a filtrate which should not be affected by nitrate of silver. It dissolves in 200 parts of water of ammonia, leaving scarcely any residue, and readily dissolves in solution of sulphide of ammonium. If this solution is acidulated by hydrochloric acid, the precipitate repeatedly washed with water, then shaken, while still moist, with 10 times its weight of solution of carbonate of ammonium (1=20), and the mixture filtered—the filtrate, when acidulated with hydrochloric acid, or subsequently treated with hydrosulphuric acid, should not acquire a yellow color.

It should be secluded from the light.

STIBIUM SULFURATUM NIGRUM.

SULPHIDE OF ANTIMONY. SPIESSGLANZ.

[*Antimonii Sulphidum, U. S. Ph.; Black Sulphide of Antimony.*]

(*Antimonium crudum; Schwefelspiessglanz.*)

Grayish-black, radially crystalline masses. Specific gravity 4.6 to 4.7.

One part of powdered Sulphide of Antimony should dissolve, when boiled with 10 parts of hydrochloric acid, leaving not more than 0.5 per cent. of a residue, and evolving hydrosulphuric acid.

STRYCHNIUM NITRICUM.

NITRATE OF STRYCHNINE. STRYCHNINNITRAT.

(*Salpetersaures Strychnin.*)

Colorless, acicular crystals of a very bitter taste, soluble in 90 parts of cold, and in 3 parts of boiling water; also soluble in 70 parts of cold, and in 5 parts of boiling alcohol. A fragment of the Salt dropped into boiling hydrochloric acid, colors the liquid permanently red.

When Nitrate of Strychnine is rubbed with nitric acid, it may be colored yellowish, but not red. It is not colored by sulphuric acid. A concentrated aqueous solution of the Salt yields, with chromate of potassium, small reddish-yellow crystals, which acquire a color varying from blue to violet, when brought in contact with sulphuric acid.

Nitrate of Strychnine should be **very cautiously** preserved.

Largest single dose..... 0.01 Gm.
Largest daily dose..... 0.02 Gm.

STYRAX LIQUIDUS.

STORAX. STORAX.

[*Styrax, U. S. Ph.*]

A glutinous mass obtained by boiling and expressing the inner bark of *Liquidambar orientalis*. It has an agreeable odor, a gray color, and

a dense consistence, so that it flows only slowly from a spatula. It sinks in water, even when warm; on the surface of the water only few small, scattered, colorless drops should be noticeable.

One hundred parts of Storax dissolve in 100 parts of warm alcohol, yielding a cloudy, grayish-brown solution of an acid reaction. This solution, when cold, and separated from the impurities by filtration, should leave on evaporation not less than 70 per cent. of a brown, semi-liquid residue, in which crystals form only after a long time. This residue dissolves, with the exception of a few flakes, in ether or disulphide of carbon, but does not dissolve in petroleum benzin.

Storax is purified for use by dissolving it in half its weight of benzol, filtering, and then evaporating the solution.

SUCCUS JUNIPERI INSPISSATUS.

Inspissated Juice of Juniper Berries. Wacholdermus.

[*Extract of Juniper Berries.*]

(*Roob Juniperi.*)

Fresh Juniper Berries, bruised, *one part*	1
Hot Water, *four parts*	4

Having stirred them frequently during twelve hours, express, and evaporate the strained liquid to a *thin* extract.

It should have a dark-brown color, a sweetly aromatic taste, free from empyreuma, and should dissolve in an equal amount of water, forming a turbid solution. A polished piece of iron should not receive a coating of copper when left in the extract, acidulated with hydrochloric acid, for half an hour.

SUCCUS LIQUIRITIÆ.

Extract of Liquorice. Lakriz.

[*Extractum Glycyrrhizæ, U. S. Ph.*]

(*Extractum Glycyrrhizæ crudum; Lakritzsaft; Süssholzsaft.*)

An extract obtained by boiling and expressing the roots of *Glycyrrhiza glabra.* In shining, black, round sticks, or in masses, having a very sweet taste. When dried at a temperature of 100° C. the Extract should not lose more than 17 per cent. of its weight. When air-dried and repeatedly exhausted by water of a temperature not exceeding 50° C., the insoluble residue, dried on a water-bath, should not exceed 25 per cent. of the original Extract. No starch-granules should be visible in the residue under the microscope.

SUCCUS LIQUIRITIÆ DEPURATUS.

PURIFIED EXTRACT OF LIQUORICE. GEREINIGTER LAKRIZ.

[*Extractum Glycyrrhizæ Purum, U. S. Ph.; Refined Liquorice.*]

(*Extractum Glycyrrhizæ depuratum.*)

Prepared by exhausting the extract of liquorice (*Succus Liquiritiæ*) with cold water and evaporating the clear liquid to a thick extract. It should be brown, yielding a clear solution with water.

SULFUR DEPURATUM.

WASHED SULPHUR. GEREINIGTER SCHWEFEL.

[*Sulphur Lotum, U. S. Ph.*]

(*Flores Sulphuris loti; Gewaschene Schwefelblumen.*)

Sublimed Sulphur, passed through a sieve, *one hundred parts*.	100
Water, *seventy parts*.....	70
Water of Ammonia, *ten parts*.....	10

Mix and stir the mass frequently for a day; then wash it thoroughly with water, dry it, and pass it through a sieve.

A yellow, dry powder without odor and taste. It leaves but a trifling residue on combustion, and dissolves when warmed with solution of soda. Moistened with water, it should not redden blue litmus paper. When Washed Sulphur is digested with 20 parts of water of ammonia and the mixture filtered, the filtrate, on being acidulated with hydrochloric acid, or, when afterward treated with hydrosulphuric acid, should not acquire a yellow color.

SULFUR PRÆCIPITATUM.

PRECIPITATED SULPHUR. SCHWEFELMILCH.

[*Milk of Sulphur.*]

(*Lac Sulphuris; Præcipitirter Schwefel.*)

A fine yellowish-white, non-crystalline powder, which, when ignited in the air, burns without leaving a residue. Moistened with water, it should not redden blue litmus paper. When Precipitated Sulphur is digested with 20 parts of water of ammonia and the mixture filtered,

the filtrate, on being acidulated with hydrochloric acid, or, when afterward treated with hydrosulphuric acid, should not acquire a yellow color.

SULFUR SUBLIMATUM.

SUBLIMED SULPHUR. SCHWEFEL.

[*Flowers of Sulphur.*]

(*Flores Sulphuris ; Schwefelblumen ; Schwefelblüthe.*)

On combustion it should leave not more than 1 per cent. of a residue.

SUMMITATES SABINÆ.

SAVINE. SABINAKRAUT.

[*Sabina, U. S. Ph.; Savine Tops.*]

(*Sadebaumspitzen ; Sevenkraut.*)

The tops of *Juniperus Sabina*. The tops of the branches of the wild-growing or cultivated plant; covered by 3 or 4 rows of scale-like leaflets, which are obtuse, appressed, or somewhat spreading and pointed, up to 3 millimeters long, and furnished with an oil-furrow on the dorsal side. Berries dark-blue or brownish-gray, irregularly shrivelled, about 5 millimeters in diameter and usually enclosing 2 seeds. These berries (fruit) which sometimes accompany the drug, possess its peculiar odor even more prominently than the leaves.

Savine should be cautiously preserved.

Largest single dose..... 1.0 Gm.
Largest daily dose..... 2.0 Gm.

SYRUPI.

SYRUPS. SYRUPE.

(*Zuckersäfte.*)

Syrups are prepared, when no other direction is given, by dissolving the Sugar in the given amount of Water or other liquid with a gentle heat, and then raising the temperature, once only, to the boiling point.

Before the Syrup is strained or filtered, the necessary quantity of water is to be added to bring it to the prescribed weight.

Every Syrup, with the exception of Syrup of Almond, should be clear.

SYRUPUS ALTHÆÆ.

SYRUP OF ALTHÆA. EIBISCHSYRUP.

[*Syrup of Marshmallow.*]

(*Altheesyrup.*)

Althæa, cut, *ten parts* 10

Wash it with water ; then macerate it for 3 hours, with frequent agitation, in

Alcohol, *five parts* 5

Water, *two hundred and fifty parts* 250

Having obtained by straining, but without pressure,

Two hundred parts 200

of the infusion, add

Sugar, *three hundred parts* 300

and prepare

Five hundred parts 500

of the syrup.

Syrup of Althæa should have a yellowish color.

SYRUPUS AMYGDALARUM.

SYRUP OF ALMONDS. MANDELSYRUP.

[*Syrupus Amygdalæ, U. S. Ph.*]

(*Syrupus emulsivus.*)

Decorticate, blanch and wash

Sweet Almonds, *fifty parts* 50

Bitter Almonds, *ten parts* 10

and beat them to an emulsion with

Water, *one hundred and twenty parts* 120

To

One hundred and thirty parts 130

of the strained emulsion, add

Sugar, *two hundred parts* 200

and heat the whole, once, to the boiling point ; then add

Orange Flower Water, *ten parts* 10

and prepare

Three hundred and forty parts 340

of Syrup.

Syrup of Almonds should be whitish.

SYRUPUS AURANTII CORTICIS.

SYRUP OF ORANGE PEEL. POMERANZENSCHALENSYRUP.

[*Syrupus Aurantii, U. S. Ph.*]

Orange Peel, cut, *five parts* 5
White Wine, *forty-five parts* 45
Macerate for two days, and strain. To
Forty parts 40
of the liquid add
Sugar, *sixty parts* 60
and prepare
One hundred parts 100
of Syrup. Filter when cold.

Syrup of Orange Peel should have a yellowish-brown color.

SYRUPUS AURANTII FLORUM.

SYRUP OF ORANGE FLOWERS. ORANGENBLÜTHENSYRUP.

(*Pomeranzenblüthensyrup.*)

Sugar, *sixty parts* 60
Water, about *twenty parts* 20
Heat them to the boiling point; when cold, add
Orange Flower Water, *twenty parts* 20
and prepare
One hundred parts 100
of Syrup. Finally filter.

Syrup of Orange Flowers should be colorless.

SYRUPUS CERASORUM.

SYRUP OF CHERRIES. KIRSCHENSYRUP.

Bruise black sour cherries with the seeds, and set them aside, in a covered vessel, at a temperature of about 20° C., stirring frequently, until a small filtered portion yields a clear mixture with half its volume of alcohol; then express and filter.

To
Thirty-five parts 35
of the filtered liquid, add
Sugar, *sixty-five parts* 65
and prepare
One hundred parts 100
of Syrup.

Syrup of Cherries should have a dark purplish-red color.

SYRUPUS CINNAMOMI.

SYRUP OF CINNAMON. ZIMMTSYRUP.

Cinnamon, in coarse powder, *ten parts*..... 10
Cinnamon Water, *fifty parts*..... 50
Macerate for two days, strain and filter. To
Forty parts..... 40
of the liquid add
Sugar, *sixty parts*..... 60
and prepare
One hundred parts..... 100
of Syrup. When cold, filter.

Syrup of Cinnamon should be clear, and have a reddish-brown color.

SYRUPUS FERRI JODATI.

SYRUP OF IODIDE OF IRON. JODEISENSYRUP.

[*Syrupus Ferri Iodidi, U. S. Ph.*]

(*Ferrojodid Syrup; Eisenjodürsyrup.*)

Powdered Iron, *twenty parts*..... 20
Water, *three hundred parts*..... 300
Mix and add gradually
Iodine, *forty-one parts*..... 41
and heat the mixture gently, stirring frequently, until solution is effected; filter this into a capsule, containing
Sugar, *six hundred and fifty parts*..... 650
and by heating, once, to the boiling point prepare
One thousand parts.....1000
of Syrup.

The Syrup should be nearly colorless, when freshly made, afterward yellowish.

It contains 5 per cent. of iodide of iron.

SYRUPUS FERRI OXYDATI SOLUBILIS.

SYRUP OF OXIDE OF IRON. EISENSYRUP.

Saccharated Oxide of Iron,
Syrup,
Water, of each, *equal parts.*
Mix them.

It should have a dark reddish-brown color.

It contains 1 per cent. of iron.

SYRUPUS IPECACUANHÆ.

SYRUP OF IPECAC. IPECACUANHASYRUP.

Ipecac, bruised, *one part*..... 1
Alcohol, *five parts*..... 5
Water, *forty parts*..... 40
Macerate for two days, strain and filter. To
Forty parts..... 40
of the liquid add
Sugar, *sixty parts*..... 60
and prepare
One hundred parts..... 100
of Syrup. When cold, filter.

Syrup of Ipecac should have a yellowish color.

SYRUPUS LIQUIRITIÆ.

SYRUP OF LIQUORICE ROOT. SÜSSHOLZWURZELSYRUP.

(*Syrupus Glycyrrhizæ.*)

Russian Liquorice Root, cut, *twenty parts*..... 20
Water of Ammonia, *ten parts*..... 10
Water, *one hundred parts*..... 100
Macerate for 10 hours; then express, heat the liquid, once, to the boiling point, and evaporate it on a steam-bath to
Ten parts..... 10
Now add to this residue
Alcohol, *ten parts*..... 10
and set the mixture aside for 12 hours; then filter, and add to the filtrate enough Syrup to make the product weigh
One hundred parts..... 100

Syrup of Liquorice Root should have a brown color.

SYRUPUS MANNÆ.

SYRUP OF MANNA. MANNASYRUP.

Dissolve
Pure Manna, *ten parts*..... 10
in
Water, *forty parts*..... 40
Filter; to the filtrate add
Sugar, *fifty parts*..... 50

and prepare

One hundred parts 100

of Syrup. When cold, filter.

Syrup of Manna should have a yellowish color.

SYRUPUS MENTHÆ.

SYRUP OF PEPPERMINT. PFEFFERMINZSYRUP.

Moisten

Peppermint, cut, *ten parts* 10

with

Alcohol, *five parts* 5

Then macerate it for one day with

Water, *fifty parts* 50

and strain without expressing. To

Forty parts 40

of the liquid add

Sugar, *sixty parts* 60

and prepare

One hundred parts 100

of Syrup. When cold, filter.

Syrup of Peppermint should have a greenish-brown color.

SYRUPUS PAPAVERIS.

SYRUP OF POPPIES. MOHNSYRUP.

[*Syrup of Poppy Heads.*]

(*Syrupus capitum Papaveris; Syrupus Diacodii.*)

Moisten

Poppy Heads, cut, *ten parts* 10

with

Alcohol, *five parts* 5

Then digest them, on a steam-bath, for one hour with

Water, *fifty parts* 50

Strain and filter. To

Thirty-five parts 35

of the liquid add

Sugar, *sixty-five parts* 65

and prepare

One hundred parts 100

of Syrup. When cold, filter.

Syrup of Poppies should have a brownish-yellow color.

SYRUPUS RHAMNI CATHARTICÆ.

SYRUP OF BUCKTHORN. KREUZDORNBEERENSYRUP.

Bruise fresh buckthorn berries and set them aside in a covered vessel, at a temperature of about 20° C., stirring frequently, until a small filtered portion yields a clear mixture with half its volume of alcohol; then express and filter. To

Thirty-five parts 35

of the filtered liquid, add

Sugar, *sixty-five parts* 65

and prepare

One hundred parts 100

of Syrup.

Syrup of Buckthorn should have a violet-red color.

SYRUPUS RHEI.

SYRUP OF RHUBARB. RHABARBERSYRUP.

Rhubarb, cut, *ten parts* 10
Cinnamon, in coarse powder, *two parts* 2
Pure Carbonate of Potassium, *one part* 1
Water, *one hundred parts* 100

Macerate for 12 hours; then strain, express, and filter. To

Eighty parts 80

of the filtered liquid add

Sugar, *one hundred and twenty parts* 120

and prepare

Two hundred parts 200

of Syrup.

Syrup of Rhubarb should have a brownish-red color.

SYRUPUS RUBI IDÆI.

SYRUP OF RASPBERRY. HIMBEERSYRUP.

Bruise fresh raspberries and set them aside, in a covered vessel, at a temperature of about 20° C., stirring frequently, until a small filtered portion yields a clear mixture with half its volume of alcohol; then express and filter. To

Thirty-five parts 35

of the liquid, add

Sugar, *sixty-five parts* 65

and prepare

One hundred parts 100

of Syrup.

Syrup of Raspberry should have a red color.

SYRUPUS SENEGÆ.

SYRUP OF SENEGA. SENEGASYRUP.

Senega Root, *five parts* 5
Alcohol, *five parts* 5
Water, *forty-five parts* 45

Macerate for 2 days; then strain, express and filter. To

Forty parts 40

of the filtered liquid add

Sugar, *sixty parts* 60

and prepare

One hundred parts 100

of Syrup. When cold, filter.

Syrup of Senega should have a yellowish color.

SYRUPUS SENNÆ.

SYRUP OF SENNA. SENNASYRUP.

Senna, cut, *ten parts* 10
Fennel, *one part* 1

Moisten them with

Alcohol, *five parts* 5

Digest them in a closed vessel, for 20 minutes, with

Water, *forty-five parts* 45

and strain without expressing. To

Thirty-five parts 35

of the strained liquid add

Sugar, *sixty-five parts* 65

and prepare

One hundred parts 100

of Syrup.

When *Syrupus Sennæ cum Manna* is prescribed, a mixture of equal parts of Syrup of Senna and Syrup of Manna is to be dispensed.

SYRUPUS SIMPLEX.

SYRUP. WEISSER SYRUP.

[*Syrupus, U. S. Ph.; Simple Syrup.*]

(*Syrupus albus; Syrupus sacchari; Einfacher Syrup.*)

Sugar, *sixty parts* 60
Water, *forty parts* 40
Prepare
One hundred parts 100
of Syrup which, when cold, filter.

Syrup should be colorless.

TALCUM.

TALC. TALK.

(*Magnesiumsilicat; Kieselsaure Magnesia; Rutschpulver; Speckstein.*)

Powdered silicate of magnesium. A white, crystalline powder, greasy to the touch and having the specific gravity 2.7. By ignition in a glass tube it is not altered.

TARTARUS BORAXATUS.

BORO-TARTRATE OF POTASSIUM. BORAXWEINSTEIN.

(*Kali tartaricum boraxatum; Cremor tartari solubilis.*)

Borate of Sodium, *two parts* 2
Introduce it into a porcelain capsule, dissolve it in
Water, *twenty parts* 20
and add
Bitartrate of Potassium, in powder, *five parts* 5

Heat the mixture on a steam-bath, with frequent stirring, until the Bitartrate of Potassium is dissolved. Evaporate the filtered liquid at a gentle heat to a tough mass, which is friable when cold. Draw out the mass into ribbons, dry them completely, and, while still warm, reduce them to powder.

A white crystalline, amorphous powder, deliquescent in the air, having an acid taste and reaction, and soluble in an equal weight of water. The solution is not affected by acetic acid, nor by a small amount of

diluted sulphuric acid ; but it affords a crystalline precipitate on the addition of tartaric acid, when standing for some time. When the Salt is moistened with a little sulphuric acid, it imparts a green color to the flame of an alcohol lamp. When heated, the Salt swells and emits vapors having the odor of burnt sugar, leaving a charred, alkaline residue.

The aqueous solution (1=10) should not be affected by solution of sulphide of ammonium ; and, when heated with solution of potassa, should not evolve the odor of ammonia. The solution should not be precipitated by oxalate of ammonium ; nor, after having been treated with a few drops of nitric acid, should it be precipitated by nitrate of barium, or rendered more than faintly opalescent by nitrate of silver.

TARTARUS DEPURATUS.

BITARTRATE OF POTASSIUM. WEINSTEIN.

[*Potassii Bitartras, U. S. Ph.; Cream of Tartar; Acid Tartrate of Potassium.*]

(*Kali bitartaricum purum ; Cremor tartari ; Crystalli tartari ; Kaliumbitartrat ; Saures wein(stein)saures Kali ; Weinsteinrahm.*)

A white, crystalline powder, gritty between the teeth, of an acidulous taste, soluble in 192 parts of cold, and in 20 parts of hot water ; and insoluble in alcohol. It dissolves in solution of soda ; and, with effervescence, in a solution of carbonate of potassium. When heated, the Salt chars, evolving the odor of burnt sugar, leaving a grayish-black mass, which, when treated with water, yields an alkaline liquid. This liquid, when filtered and treated with an excess of tartaric acid, effervesces and yields a crystalline precipitate, readily soluble in solution of soda.

When 5 Gm. of the Salt are shaken with 100 Gm. of water and filtered, the filtrate, when acidulated with nitric acid, should not be affected by nitrate of barium ; and nitrate of silver should not cause more than a slight opalescence. A solution of Bitartrate of Potassium in water of ammonia should remain unaffected by solution of sulphide of ammonium. When 1 Gm. of the Salt is frequently shaken, during half an hour, with 5 Gm. of acetic acid, and then mixed with 25 Gm. of water, the filtrate should suffer no change within one minute, when treated with 8 drops of test-solution of oxalate of ammonium. When heated with solution of soda, the Salt should not evolve the odor of ammonia.

TARTARUS NATRONATUS.

TARTRATE OF POTASSIUM AND SODIUM. KALIUMNATRIUMTARTRAT.

[*Potassii et Sodii Tartras, U. S. Ph.; Rochelle Salt; Tartarated Soda.*]

(*Natro-kali tartaricum; Sal polychrestum Seignetti; Natronweinstein.*)

Colorless, transparent, prismatic crystals; soluble in 1.4 part of water, forming a neutral solution which, on the addition of acetic acid, yields a white, crystalline precipitate readily soluble in hydrochloric acid and in solution of soda. When heated on a water-bath, the crystals fuse to a colorless liquid; at a higher temperature, they lose their water of crystallization, evolve the odor of burnt sugar, and are converted into a black mass, which, when treated with water, affords an alkaline liquid. This liquid when evaporated to dryness leaves a white residue which imparts a yellow color to the flame.

The aqueous solution (1=10) should not be affected by solution of sulphide of ammonium nor by oxalate of ammonium; nor, after addition of hydrochloric acid and removal of the precipitated bitartrate of potassium, should any change be produced by solution of hydrosulphuric acid or by nitrate of barium. The solution, acidulated with nitric acid, should not be rendered more than opalescent by nitrate of silver.

When heated with solution of soda, the Salt should not evolve the odor of ammonia.

TARTARUS STIBIATUS.

TARTRATE OF ANTIMONY AND POTASSIUM. BRECHWEINSTEIN.

[*Antimonii et Potassii Tartras, U. S. Ph.; Tartar Emetic; Tartarated Antimony.*]

(*Tartarus emeticus; Stibio-kali tartaricum; Spiessglanzweinstein; Antimonkali.*)

White crystals, or a crystalline powder, efflorescing slowly in the air, soluble in 17 parts of cold, in 3 parts of boiling water, and insoluble in alcohol. When heated, the Salt chars. Its aqueous solution has a feebly acid reaction, a nauseous, sweetish taste, and yields, with lime water, a white precipitate readily soluble in acetic acid; the same solution, when acidulated with hydrochloric acid, affords a reddish-brown precipitate with hydrosulphuric acid.

A cold prepared solution of 0.5 Gm. of the Salt in 10 Gm. of hydrochloric acid, treated with 2 drops of a freshly prepared, saturated, aque-

ous solution of hydrosulphuric acid, should not be colored yellow, nor yield a yellow precipitate, even when standing for 4 hours.

It should be **cautiously** preserved.

Largest single dose ..... **0.2 Gm.**
Largest daily dose ..... **0.5 Gm.**

TEREBINTHINA.

COMMON EUROPEAN TURPENTINE. GEMEINER TERPENTIN.

(*Terebinthina communis.*)

A resinous juice obtained from the *Abietineæ*, especially from *Pinus Pinaster* and *Pinus Laricio*, and consisting of 70 to 85 per cent. of resin and 30 to 15 per cent. of oil of turpentine. A semi-fluid mass having a peculiar odor and a bitter taste. The crystalline deposit, generally found in the Turpentine, dissolves by the heat of a water-bath, with the rest of the mass, to a clear liquid; the Turpentine then has a brownish-yellow color, but it soon becomes again turbid. With 5 times its weight of alcohol, Turpentine yields a clear solution which strongly reddens a piece of litmus paper moistened with water.

THYMOLUM.

THYMOL. THYMOL.

[*Thymol, U. S. Ph.*]

(*Thymiansäure.*)

Large, colorless, transparent crystals having a thyme-like odor, and an aromatic taste. They fuse between 50 and 52° C., and boil between 222 and 230° C.

The crystals sink in water, but when fused, float on that liquid. They dissolve in less than their own weight of alcohol, ether or chloroform; also in 2 parts of solution of soda, and in 1,100 parts of water. They are vaporized with the steam of water.

Thymol dissolves in 4 times its weight of cold sulphuric acid, with a yellowish color, which, on gently warming, changes to a bright rose-red. When this acid solution is poured into 10 times its volume of water and digested with an excess of carbonate of lead, the filtrate assumes a handsome violet-blue color on the addition of a small amount of ferric chloride. The aqueous solution yields a white precipitate on the introduction of vapor of bromine.

The aqueous solution should be neutral and should not be colored by ferric chloride. When exposed, in an open capsule, to the heat of a water-bath, Thymol should be volatilized.

TINCTURÆ.

TINCTURES. TINCTUREN.

Where no other process is given for the preparation of the Tinctures, the Substances, finely cut or in coarse powder, are macerated for one week with the required menstruum, in a closed bottle, and in a shady place, with frequent agitation, at a temperature of about 15° C. The liquid is then separated by straining, or when so ordered, by expressing, from the insoluble residue, and, after having been allowed to settle, it is filtered. Evaporation should be avoided as much as possible during filtration.

All the Tinctures must be dispensed clear.

TINCTURA ABSINTHII.

TINCTURE OF WORMWOOD. WERMUTTINCTUR.

Prepare it from

Wormwood, *one part* 1
Diluted Alcohol, *five parts* 5

Tincture of Wormwood has a dark brownish-green color, a very bitter taste and the odor of Wormwood.

TINCTURA ACONITI.

TINCTURE OF ACONITE. ACONITTINCTUR.

(*Eisenhuttinctur; Sturmhuttinctur.*)

Prepare it from

Aconite Root, *one part* 1
Diluted Alcohol, *ten parts* 10

Tincture of Aconite has a brownish-yellow color, and has no especial odor or taste.

It should be **cautiously** preserved.

Largest single dose ..... **0.5 Gm.**
Largest daily dose ..... **2.0 Gm.**

TINCTURA ALOËS.

TINCTURE OF ALOES. ALOËTINCTUR.

Prepare it from

Aloes, *one part* 1
Alcohol, *five parts* 5

Tincture of Aloes has a dark greenish-brown color and a very bitter taste.

TINCTURA ALOËS COMPOSITA.

COMPOUND TINCTURE OF ALOES. ZUSAMMENGESETZTE ALOËTINCTUR.

(*Elixir ad longam vitam.*)

Prepare it from

Aloes, *six parts*	6
Rhubarb, *one part*	1
Gentian, *one part*	1
Zedoary, *one part*	1
Saffron, *one part*	1
Diluted Alcohol, *two hundred parts*	200

The Tincture has a yellowish-brown to reddish-brown color, the aromatic odor of saffron and aloes, and a very bitter, aromatic taste. It yields a clear mixture with water in all proportions.

TINCTURA AMARA.

BITTER TINCTURE. BITTERE TINCTUR.

(*Bittertropfen; Bittere Magentropfen.*)

Prepare it from

Gentian, *three parts*	3
Centaury, *three parts*	3
Orange Peel, *two parts*	2
Orange Berries, *one part*	1
Zedoary, *one part*	1
Diluted Alcohol, *fifty parts*	50

Bitter Tincture has a greenish-brown color, an aromatic odor, and a bitter, aromatic taste.

TINCTURA ARNICÆ.

TINCTURE OF ARNICA. ARNICATINCTUR.

[*Tinctura Arnicæ Florum, U. S. Ph.*]

(*Wohlverleihblütentinctur.*)

Prepare it from

Arnica Flowers, *one part*	1
Diluted Alcohol, *ten parts*	10

Tincture of Arnica has a brownish-yellow color, a bitterish taste, and the odor of arnica flowers.

TINCTURA AROMATICA.

AROMATIC TINCTURE. AROMATISCHE TINCTUR.

(*Gewurztinctur.*)

Prepare it from

Cinnamon, *five parts*	5
Ginger, *two parts*	2
Galangal Root, *one part*	1
Cloves, *one part*	1
Cardamom, *one part*	1
Diluted Alcohol, *fifty parts*	50

Aromatic Tincture has a brownish-red color, and a strongly aromatic odor and taste.

TINCTURA ASÆFŒTIDÆ.

TINCTURE OF ASAFETIDA. ASANTTINCTUR.

[*Tinctura Asafœtidæ, U. S. Ph.*]

(*Asafœtidatinctur; Stinkasanttinctur.*)

Prepare it from

Asafetida, *one part*	1
Alcohol, *five parts*	5

The Tincture has a yellowish-brown to brownish-red color.

TINCTURA AURANTII.

TINCTURE OF ORANGE PEEL. POMERANZENTINCTUR.

[*Tinctura Aurantii Amari, U. S. Ph.*]

(*Pomeranzenschalentinctur.*)

Prepare it from

Orange Peel, *one part*	1
Diluted Alcohol, *five parts*	5

The Tincture has a reddish-brown to yellowish-brown color, and the odor and taste of orange peel.

TINCTURA BENZOËS.

TINCTURE OF BENZOIN. BENZOËTINCTUR.

[*Tinctura Benzoini, U. S. Ph.*]

Prepare it from

Benzoin, *one part* 1
Alcohol, *five parts* 5

Tincture of Benzoin has a reddish-yellow to brownish-yellow color, and the odor of benzoin. It yields, with water, a milky mixture of a strongly acid reaction.

TINCTURA CALAMI.

TINCTURE OF CALAMUS. CALMUSTINCTUR.

Prepare it from

Calamus, *one part* 1
Diluted Alcohol, *five parts* 5

Tincture of Calamus has a brownish-yellow color, the odor of the root, and a bitter, burning, aromatic taste.

TINCTURA CANNABIS INDICÆ.

TINCTURE OF INDIAN HEMP. INDISCH-HANFTINCTUR.

Dissolve

Extract of Indian Hemp, *one part* 1

in

Alcohol, *nineteen parts* 19

A dark-green liquid of a peculiar narcotic odor and a somewhat bitter taste. It is rendered turbid by a small amount of water and, with an equal volume of water, it yields a milky liquid from which an abundance of resin speedily separates.

It should be cautiously preserved.

TINCTURA CANTHARIDUM.

TINCTURE OF CANTHARIDES. SPANISCHFLIEGENTINCTUR.

[*Tinctura Cantharidis, U. S. Ph.*]

(*Canthariden-tinctur.*)

Prepare it from

Cantharides, *one part* 1
Alcohol, *ten parts* 10

Tincture of Cantharides has a greenish-yellow color, a burning taste, and the odor of cantharides.

It should be **cautiously** preserved.

Largest single dose ..... **0.5 Gm.**
Largest daily dose..... **1.5 Gm.**

TINCTURA CAPSICI.

TINCTURE OF CAPSICUM. SPANISCHPFEFFERTINCTUR.

Prepare it from
Capsicum, *one part*..... 1
Alcohol, *ten parts* 10

Tincture of Capsicum has a reddish-yellow color, and a sharply burning taste, without an especial odor.

TINCTURA CASTOREI.

TINCTURE OF CASTOR. BIBERGEILTINCTUR.

Prepare it from
Castor, *one part*..... 1
Alcohol, *ten parts* 10

Tincture of Castor has a dark reddish-brown color, and a strong odor of castor. It yields, with 4 to 5 volumes of water, a milky, clay-colored liquid, which, when shaken, deposits an abundance of resin, and becomes nearly clear and colorless.

TINCTURA CATECHU.

TINCTURE OF CATECHU. CATECHUTINCTUR.

Prepare it from
Catechu, *one part* 1
Diluted Alcohol, *five parts*..... 5

Tincture of Catechu has a dark reddish-brown color; is transparent only in thin layers; without any prominent odor, but of a very astringent taste. It has an acid reaction, and is colored dirty-green by ferric chloride. When heated with a little chromate of potassium, it assumes a dark cherry-red color.

TINCTURA CHINÆ.

TINCTURE OF CINCHONA. CHINATINCTUR.

[*Tinctura Cinchonæ, U. S. Ph.*]

Prepare it from

Cinchona, *one part*	1
Diluted Alcohol, *five parts*	5

Tincture of Cinchona has a reddish-brown color, and a very bitter taste.

TINCTURA CHINÆ COMPOSITA.

COMPOUND TINCTURE OF CINCHONA. ZUSAMMENGESETZTE CHINATINCTUR.

[*Tinctura Cinchonæ Composita, U. S. Ph.*]

(*Elixir roborans Whythii; Roborwytt.*)

Prepare it from

Cinchona, *six parts*	6
Orange Peel, *two parts*	2
Gentian, *two parts*	2
Cinnamon, *one part*	1
Diluted Alcohol, *fifty parts*	50

The Tincture has a reddish-brown color, an aromatic and strongly bitter taste, and the odor of cinnamon and orange peel.

TINCTURA CHINIOÏDINI.

TINCTURE OF CHINOIDIN. CHINIOÏDTINCTUR.

Chinoidin, *ten parts*	10
Diluted Alcohol, *eighty-five parts*	85
Hydrochloric Acid, *five parts*	5

Dissolve, and filter the solution.

The Tincture has a dark-brown color, and is transparent only in thin layers. It has a very bitter taste, but no prominent odor. When the Tincture is mixed with an equal volume of water, and the same amount of water of ammonia, the chinoidin is deposited, and the liquid exhibits a yellowish color.

TINCTURA CINNAMOMI.

TINCTURE OF CINNAMON. ZIMMTTINCTUR.

Prepare it from

Cinnamon, *one part* 1
Diluted Alcohol, *five parts* 5

Tincture of Cinnamon has a reddish-brown color, and a sweetish-aromatic, somewhat astringent, cinnamon-like taste.

TINCTURA COLCHICI.

TINCTURE OF COLCHICUM. COLCHICUMTINCTUR.

(*Tinctura seminis Colchici; Zeitlosentinctur.*)

Prepare it from

Colchicum Seed, *one part* 1
Diluted Alcohol, *ten parts* 10

The Tincture has a yellow color and a bitter taste; it has no prominent odor.

It should be **cautiously** preserved.

Largest single dose..... **2.0 Gm.**
Largest daily dose..... **6.0 Gm.**

TINCTURA COLOCYNTHIDIS.

TINCTURE OF COLOCYNTH. COLOQUINTENTINCTUR.

Prepare it from

Colocynth, with the seeds, *one part* 1
Alcohol, *ten parts* 10

Tincture of Colocynth has a yellow color, and a very bitter taste; it has no prominent odor.

It should be **cautiously** preserved.

Largest single dose..... **1.0 Gm.**
Largest daily dose..... **3.0 Gm.**

TINCTURA CROCI.

TINCTURE OF SAFFRON. SAFRANTINCTUR.

Prepare it from

Saffron, *one part* 1
Diluted Alcohol, *ten parts* 10

Tincture of Saffron has a dark orange-yellow color, and the odor and taste of saffron.

TINCTURA DIGITALIS.

TINCTURE OF DIGITALIS. FINGERHUTTINCTUR.

Prepare it from

Digitalis, dried, *one part* 1
Diluted Alcohol, *ten parts* 10

Tincture of Digitalis has a dark green color, the odor of the leaves and a bitter taste.

It should be cautiously preserved.

Largest single dose..... 1.5 Gm.
Largest daily dose ..... 5.0 Gm.

TINCTURA FERRI ACETICI ÆTHEREA.

ETHEREAL TINCTURE OF ACETATE OF IRON. AETHERISCHE EISENACETATTINCTUR.

[*Tinctura Ferri Acetatis, U. S. Ph.; Tincture of Acetate of Iron.*]

(*Aetherische essigsaure Eisentinctur; Aetherische Eisenchloridtinctur.*)

Solution of Acetate of Iron, *eighty parts* 80
Avoiding the rise of temperature as much as possible, mix it with
Alcohol, *twelve parts* 12
and
Acetic Ether, *eight parts* 8

A clear, dark brownish-red liquid, transparent only in thin layers, having the odor of acetic ether, and an acidulous, astringent and harsh taste; yielding a clear mixture with water in all proportions. Specific gravity 1.044 to 1.046. It contains 4 per cent. of iron. It should be kept protected from the light.

TINCTURA FERRI CHLORATI ÆTHEREA.

ETHEREAL TINCTURE OF CHLORIDE OF IRON. AETHERISCHE CHLOREISENTINCTUR.

(*Spiritus Ferri chlorati æthereus; Liquor anodynus martiatus; Tinctura tonico-nervina Bestuscheffii.*)

Solution of Chloride of Iron, *one part* 1
Ether, *two parts* 2
Alcohol, *seven parts* 7
Mix them.

Introduce the Tincture into bottles made of white glass, which should not be entirely filled, and, having corked them tightly, expose them to the rays of the sun until the Tincture has become entirely decolorized. Then remove the bottles to a shady place, and open them occasionally, until their contents have again assumed a yellow color.

A clear, yellow liquid of an ethereal odor and a burning, ferruginous taste. When diluted with water, the Tincture affords a blue precipitate, both with ferro- and ferricyanide of potassium ; a black one with water of ammonia, and a white one with nitrate of silver. Specific gravity 0.850 to 0.854. It contains 1 per cent. of iron.

On mixing 10 C.c. of the Tincture with 10 C.c. of solution of acetate of potassium, 3 C.c. of an ethereal layer should separate on standing.

TINCTURA FERRI POMATIA.

TINCTURE OF FERRATED EXTRACT OF APPLES. — ÄPFELSAURE EISENTINCTUR.

(*Stahltropfen.*)

Ferrated Extract of Apples, *one part*	1
Cinnamon Water, *nine parts*	9

Dissolve and filter.

A blackish-brown liquid having the odor of cinnamon, and a mild ferruginous taste ; yielding a clear mixture with water in all proportions.

TINCTURA GALLARUM.

TINCTURE OF NUTGALL. — GALLÄPFELTINCTUR.

[*Tinctura Gallæ, U. S. Ph.*]

Prepare it from

Nutgalls, *one part*	1
Diluted Alcohol, *five parts*	5

Tincture of Nutgall has a yellowish-brown color, a strongly astringent and harsh taste, and an acid reaction. It forms a clear mixture with water in all proportions, and affords a bluish-black precipitate with ferric salts.

TINCTURA GENTIANÆ.

TINCTURE OF GENTIAN. — ENZIANTINCTUR.

Prepare it from

Gentian, *one part*	1
Diluted Alcohol, *five parts*	5

Tincture of Gentian has a yellowish-red to brownish-red color, a very bitter taste, and the odor of gentian.

TINCTURA JODI.

TINCTURE OF IODINE. JODTINCTUR.

Iodine, reduced to powder, *one part*	1
Alcohol, *ten parts*	10

Mix and dissolve.

It should be prepared without the application of heat, in a glass-stoppered bottle.

Tincture of Iodine has a dark reddish-brown color and the odor of iodine. It volatilizes when warmed, leaving no residue. Specific gravity 0.895 to 0.898.

Two Gm. of the Tincture mixed with 25 C.c. of water, 0.5 Gm. of iodide of potassium, and a little solution of starch, should require 13.8 to 14.3 C.c. of the volumetric solution of hyposulphite of sodium to combine with the free iodine.

It should be **cautiously** preserved.

Largest single dose ..... **0.2 Gm.**
Largest daily dose ..... **1.0 Gm.**

TINCTURA IPECACUANHÆ.

TINCTURE OF IPECAC. IPECACUANHATINCTUR.

(*Brechwurzeltinctur.*)

Prepare it from

Ipecac, *one part*	1
Diluted Alcohol, *ten parts*	10

Tincture of Ipecac has a reddish-yellow to brownish-yellow color, and a somewhat bitter taste.

It should be **cautiously** preserved.

TINCTURA LOBELIÆ.

TINCTURE OF LOBELIA. LOBELIATINCTUR.

Prepare it from

Lobelia, *one part*	1
Diluted Alcohol, *ten parts*	10

The Tincture has a brownish-green color, no especial odor, and a nauseous, acrid taste.

Largest single dose ..... **1.0 Gm.**
Largest daily dose ..... **5.0 Gm.**

TINCTURA MOSCHI.

TINCTURE OF MUSK. MOSCHUSTINCTUR.

(*Bisamtinctur.*)

Prepare it from

Musk, *one part*	1
Diluted Alcohol, *twenty-five parts*	25
Water, *twenty-five parts*	25

Rub the Musk with the Water ; then add the Alcohol.

Tincture of Musk has a reddish-brown color, and a strong, penetrating odor of musk. It forms a clear mixture with water.

TINCTURA MYRRHÆ.

TINCTURE OF MYRRH. MYRRHENTINCTUR.

Prepare it from

Myrrh, in fine powder, *one part*	1
Alcohol, *five parts*	5

Tincture of Myrrh has a reddish-yellow color, the odor of myrrh, and a bitter, burning, aromatic taste ; becoming turbid when mixed with water.

TINCTURA OPII BENZOICA.

CAMPHORATED TINCTURE OF OPIUM. BENZOËSÄUREHALTIGE OPIUMTINCTUR.

[*Tinctura Opii Camphorata, U. S. Ph.; Benzoated Tincture of Opium ; Paregoric Elixir.*]

(*Elixir paregoricum.*)

Prepare it from

Opium, powdered, *one part*	1
Oil of Anise, *one part*	1
Camphor, *two parts*	2
Benzoic Acid, *four parts*	4
Diluted Alcohol, *one hundred and ninety-two parts*	192

The Tincture has a brownish-yellow color, the odor of camphor and of oil of anise ; a strongly aromatic, sweetish taste, and an acid reaction. In 100 Gm. it contains the soluble parts of 0.5 Gm. of opium, or approximately 0.05 Gm. of morphine.

It should be **cautiously** preserved.

TINCTURA OPII CROCATA.

TINCTURE OF OPIUM AND SAFFRON. SAFRANHALTIGE OPIUMTINCTUR.

[*Sydenham's Laudanum.*]

(*Laudanum liquidum Sydenhami.*)

Prepare it from

Opium, powdered, *thirty parts*	30
Saffron, *ten parts*	10
Cloves, *two parts*	2
Cinnamon, *two parts*	2
Diluted Alcohol, *one hundred and fifty parts*	150
Water, *one hundred and fifty parts*	150

The Tincture has a dark yellowish-red color; when diluted, it is of a pure yellow. It has the odor of saffron, and a bitter taste. Specific gravity 0.980 to 0.984.

It contains in 100 Gm. the soluble parts of nearly 10 Gm. of opium, or approximately 1 per cent. of morphine. [It may be assayed by the following method:]

Weigh 40 Gm. of the Tincture with 10 Gm. of ether and 1 Gm. of water of ammonia in a bottle; shake the latter thoroughly, close it well, and set it aside, at a temperature of 10 to 15° C. for 12 hours, with frequent agitation. Then transfer the contents of the bottle to a small tared filter (80 millimeters in diameter). When drained, rinse the crystals of morphine, remaining on the filter, twice with a mixture of 2 Gm. of diluted alcohol, 2 Gm. of water, and 2 Gm. of ether; and dry them, together with the filter, at a temperature of 100° C. The morphine, thus obtained, should weigh not less than 0.38 Gm.

The Tincture should be **cautiously** preserved.

Largest single dose	**1.5 Gm.**
Largest daily dose	**5.0 Gm.**

TINCTURA OPII SIMPLEX.

TINCTURE OF OPIUM. EINFACHE OPIUMTINCTUR.

[*Tinctura Opii, U. S. Ph.; Laudanum.*]

(*Tinctura Thebaica; Tinctura Meconii.*)

Prepare it from

Opium, powdered, *one part*	1
Diluted Alcohol, *five parts*	5
Water, *five parts*	5

Tincture of Opium has a reddish-brown color, the odor of opium, and a bitter taste. Specific gravity 0.974 to 0.978.

It contains in 100 Gm. the soluble parts of nearly 10 Gm. of opium, or approximately 1 per cent. of morphine.

When 40 Gm. are assayed, by the process given under *Tinctura Opii Crocata*, they should yield not less than 0.38 Gm. of morphine.

Tincture of Opium should be cautiously preserved.

Largest single dose..... 1.5 Gm.
Largest daily dose..... 5.0 Gm.

TINCTURA PIMPINELLÆ.

TINCTURE OF PIMPINEL. BIBERNELLTINCTUR.

(*Pimpinelltinctur.*)

Prepare it from

Pimpinel Root, *one part* 1
Diluted Alcohol, *five parts* 5

The Tincture has a brownish-yellow color, the odor of the root, and a nauseous, acrid taste.

TINCTURA RATANHIÆ.

TINCTURE OF KRAMERIA. RATANHIATINCTUR.

[*Tinctura Krameriæ, U. S. Ph.; Tincture of Rhatany.*]

Prepare it from

Krameria (Peruvian Rhatany), *one part* 1
Diluted Alcohol, *five parts* 5

The Tincture has a dark wine-red color, which appears raspberry-red on dilution; it has no odor, but a strongly astringent, harsh taste.

TINCTURA RHEI AQUOSA.

AQUEOUS TINCTURE OF RHUBARB. WÄSSERIGE RHABARBERTINCTUR.

Rhubarb, *one hundred parts* 100
Borate of Sodium, *ten parts* 10
Pure Carbonate of Potassium, *ten parts* 10
Water, *nine hundred parts* 900
Cinnamon Water, *one hundred and fifty parts* 150
Alcohol, *ninety parts* 90

Heat the Water to boiling, pour it upon the coarsely cut Rhubarb (freed from powder), the Borate of Sodium, and the Carbonate of Potas-

sium, and allow them to digest in a closed vessel for a quarter of an hour; then add the Alcohol, and set the mixture aside for one hour. Now strain the mixture through a woollen cloth, and express gently the undissolved portion. Finally, add Cinnamon Water in the proportion of 150 *parts* to 850 *parts* of the strained liquid.

The Tincture has a dark reddish-brown color, being transparent only in thin layers; it has the odor and taste of rhubarb, and yields a clear mixture with water.

TINCTURA RHEI VINOSA.

VINOUS TINCTURE OF RHUBARB. WEINIGE RHABARBERTINCTUR.

[*Vinum Rhei, U. S. Ph.*]

(*Tinctura Rhei Darelii; Rhabarberwein.*)

Prepare it from

Rhubarb, *eight parts*	8
Orange Peel, *two parts*	2
Cardamom, *one part*	1
Sherry Wine, *one hundred parts*	100

In the filtered Tincture dissolve one-seventh of its weight of sugar.

The Tincture has a yellowish-brown color which changes to a brownish-red on the addition of an alkali; it has the odor of cardamom, and a sweetish, aromatic taste. It mixes with water with scarcely a perceptible cloudiness.

TINCTURA SCILLÆ.

TINCTURE OF SQUILL. MEERZWIEBELTINCTUR.

Prepare it from

Squill, *one part*	1
Diluted Alcohol, *five parts*	5

Tincture of Squill has a yellow color, a weak odor, and a nauseous, bitter taste.

TINCTURA STRYCHNI.

TINCTURE OF NUX VOMICA. STRYCHNOSSAMENTINCTUR.

[*Tinctura Nucis Vomicæ, U. S. Ph.*]

(*Krähenaugentinctur; Brechnusstinctur.*)

Prepare it from

Nux Vomica, *one part*	1
Diluted Alcohol, *ten parts*	10

The Tincture has a yellow color and a very bitter taste. When a few drops are evaporated on porcelain, they leave a residue which is colored yellowish-red by nitric acid.

Tincture of Nux Vomica should be **cautiously** preserved.

Largest single dose ..... **1.0 Gm.**
Largest daily dose ..... **2.0 Gm.**

TINCTURA VALERIANÆ.

TINCTURE OF VALERIAN. BALDRIANTINCTUR.

Prepare it from

Valerian, *one part* 1
Diluted Alcohol, *five parts* 5

Tincture of Valerian has a reddish-brown color, and a strong odor and taste of valerian.

TINCTURA VALERIANÆ ÆTHEREA.

ETHEREAL TINCTURE OF VALERIAN. ÆTHERISCHE BALDRIANTINCTUR.

Prepare it from

Valerian, *one part* 1
Spirit of Ether, *five parts* 5

The Tincture has a yellow color and the odor and taste of the constituents.

TINCTURA VERATRI.

TINCTURE OF WHITE HELLEBORE. NIESWURZELTINCTUR.

Prepare it from

White Hellebore, *one part* 1
Diluted Alcohol, *ten parts* 10

The Tincture has a dark reddish-brown color, and a bitter, acrid taste. It should be **cautiously** preserved.

TINCTURA ZINGIBERIS.

TINCTURE OF GINGER. INGWERTINCTUR.

Prepare it from

Ginger, *one part* 1
Diluted Alcohol, *five parts* 5

Tincture of Ginger has a brownish-yellow color, the odor of ginger, and a burning taste.

TRAGACANTHA.

TRAGACANTH. TRAGANTH.

[*Gum Tragacanth.*]

(*Gummi Tragacantha.*)

An inspissated, hard, gummy exudation from the stems of numerous species of *Astragalus* growing in Asia Minor and Western Asia, for instance: *Astragalus adscendens*, *A. leioclados*, *A. brachycalyx*, *A. gummifer*, *A. microcephalus*, *A. pycnoclados*, and *A. verus*. In laminæ and in ribbon-like or sickle-shaped bands. The white, translucent, striated sorts should be selected, having a thickness of from 1 to 3 millimeters, and a width of not less than 0.5 centimeter.

Tragacanth swells considerably in water, and when powdered, yields, with 50 parts of water, a turbid glutinous mucilage of an insipid taste, and which is colored yellow by solution of soda. When the mucilage is diluted with water and filtered, the residue on the filter is colored dark-blue when sprinkled with iodine; the filtrate, however, is not rendered blue with solution of iodine.

TROCHISCI.

TROCHES. PASTILLEN.

[*Lozenges.*]

(*Trochischen; Zeltchen.*)

To prepare sugar Troches, the whole amount of the desired medicinal substance is intimately mixed with enough powdered sugar to make each Troche weigh 1 Gm. The mixture is then carefully moistened with diluted alcohol, so that, by pressure, it may be formed into a plastic mass, to be divided into the required number of Troches.

To prepare chocolate Troches, an equal amount of prepared cacao and powdered sugar are melted on a steam-bath to a chocolate-mass, and so much of it intimately mixed with the desired amount of the medicinal substance that each Troche shall weigh 1 Gm. From the partially cooled mass, the required number of Troches is formed.

TROCHISCI SANTONINI.

TROCHES OF SANTONIN. SANTONINPASTILLEN.

Each Troche contains 0.025 Gm. of santonin.

TUBERA ACONITI.

ACONITE ROOT. EISENHUTKNOLLEN.

[*Aconitum; Aconite, U. S. Ph.*]

(*Sturmhutknollen; Aconitknollen.*)

The turnip-shaped tubers of *Aconitum Napellus;* weighing on an average about 6 Gm., attaining a diameter at the top of about 2 centimeters, and a length of from 3 to 8 centimeters; mostly tapering very gradually to a simple point. They are crowned with a short remnant of a stem or bud; are grayish-brown externally, strongly wrinkled longitudinally, and marked with the scars of numerous rootlets. The interior texture is whitish, breaking with a mealy or granular fracture. Taste acridly constringent.

Aconite Root should be cautiously preserved.

Largest single dose ..... **0.1 Gm.**
Largest daily dose ..... **0.5 Gm.**

TUBERA JALAPÆ.

JALAP. JALAPENKNOLLEN.

[*Jalapa, U. S. Ph.*]

(*Radix Jalapæ.*)

The tubers of *Ipomœa Purga;* mostly pear-shaped or somewhat elongated, varying from less than 1 centimeter in diameter to a size larger than a fist; mostly tapering to a short point; furnished at the top with short stem-remnants, which are only a few millimeters thick. Externally grayish-brown, wrinkled, gibbous, without leaf-scars or rootlets. Interior texture very compact; fracture smooth, mealy or horny, neither woody nor fibrous; exhibiting, on a whitish or brownish-gray ground, concentric zones of dark-colored resin-cells which are not interrupted by radial fibro-vascular bundles. The taste of the root is at first insipid and then becomes acrid. It has frequently a smoky odor. When treated by the method given under *Resina Jalapæ*, the root should yield at least 10 per cent. of resin, which should have the characteristics mentioned there.

TUBERA SALEP.

SALEP. SALEP.

(*Radix Salep.*)

The globular or pear-shaped tubers of several genera of *Ophrydeæ*, growing in the East, and in Germany; for instance: *Orchis mascula*,

O. militaris, O. morio, O. ustulata, Anacamptis pyramidalis, and *Platanthera bifolia*. The tubers should be dug up during, or immediately after, the flowering season of the plant; those bearing the stem being rejected, and the others steeped in boiling water, rubbed off and dried. These tubers then have a thickness of from 0.5 to 2 centimeters and a length up to 4 centimeters, mostly a somewhat rough, light brownish-gray or yellowish exterior, and exhibiting at the top the scar of the stem-bud. The interior texture is very hard, horny, but not dark-colored. Powdered Salep, when boiled with 50 parts of water, yields a mucilage which is moderately stiff when cold, of an insipid taste, and colored blue by iodine.

UNGUENTA.

Ointments. Salben.

In preparing Ointments the less fusible constituents should either be melted alone, or only with a small portion of the more readily fusible substances, the latter being gradually added to the melted mass, and care being taken that the temperature be not raised higher than necessary.

Those Ointments which are prepared only from wax or resin, in combination with a fat or fixed oil, must be constantly stirred, after the substances are melted together, until cold. Any substance containing water should be gradually added during the process of stirring and cooling. Powdered substances, when added, should be in the finest condition, and, if necessary, finely levigated. They should first be triturated with a little oil or melted ointment, before being added.

Extracts or salts should be rubbed with, or dissolved in a little water, before being incorporated, with the exception of *Tartarus stibiatus*, which should be added in form of a very fine, dry powder.

All the Ointments should have a uniform consistence, and be free from rancidity and mouldiness.

UNGUENTUM BASILICUM.

Basilicon Ointment. Königssalbe.

[*Ceratum Resinæ; Resin Cerate, U. S. Ph.*]

(*Basilicumsalbe.*)

Common Olive Oil, *forty-five parts*	45
Yellow Wax, *fifteen parts*	15
Resin, *fifteen parts*	15
Mutton Suet, *fifteen parts*	15
Common Turpentine, *ten parts*	10

It should have a yellowish-brown color.

UNGUENTUM CANTHARIDUM.

CANTHARIDES OINTMENT. SPANISCHFLIEGENSALBE.

(*Unguentum irritans; Unguentum ad fonticulos; Reissalbe; Cantharidensalbe; Scharfe Salbe.*)

Cantharides, coarsely powdered, *two parts* 2
Olive Oil, *eight parts* 8

Digest them for 10 hours on a steam-bath, express and filter the oil. Prepare the Ointment with

Seven parts of the Filtered Oil 7

and

Yellow Wax, *three parts* 3

Cantharides Ointment should have a yellow color.

UNGUENTUM CEREUM.

WAX OINTMENT. WACHSSALBE.

(*Cerasalbe.*)

Prepare it from

Olive Oil, *seven parts* 7
Yellow Wax, *three parts* 3

Wax Ointment should have a yellow color.

UNGUENTUM CERUSSÆ.

OINTMENT OF CARBONATE OF LEAD. BLEIWEISSSALBE.

[*Unguentum Plumbi Carbonatis, U. S. Ph.*]

(*Unguentum Plumbi subcarbonici; Unguentum Plumbi hydrico-carbonici; Unguentum album simplex.*)

Prepare it from

Carbonate of Lead, *three parts* 3
Paraffin Ointment, *seven parts* 7

A very white Ointment.

UNGUENTUM CERUSSÆ CAMPHORATUM.

CAMPHORATED OINTMENT OF CARBONATE OF LEAD. CAMPHERHALTIGE BLEIWEISSSALBE.

Prepare it from

Ointment of Carbonate of Lead, *ninety-five parts* 95
Camphor, powdered, *five parts* 5

A white Ointment, having the odor of camphor.

UNGUENTUM DIACHYLON.

DIACHYLON OINTMENT. DIACHYLONSALBE.

(*Unguentum diachylon Hebræ; Unguentum Hebræ; Hebra'sche (Blei-) Salbe.*)

Lead Plaster, *five parts* 5

Free it from glycerin by washing it with water; after allowing the water to evaporate on a water-bath, add

Olive Oil, *five parts* 5

and melt them together, at a gentle heat, on the water-bath; then stir the mixture until it is cold. Having allowed the finished Ointment to stand for a few hours, stir it again.

Diachylon Ointment is nearly white.

UNGUENTUM GLYCERINI.

GLYCERIN OINTMENT. GLYCERINSALBE.

Tragacanth, powdered, *one part* 1
Alcohol, *five parts* 5

Rub them together, add

Glycerin, *fifty parts* 50

and heat the mixture on a steam-bath.

A white, translucent Ointment of a uniform consistence.

UNGUENTUM HYDRARGYRI ALBUM.

OINTMENT OF AMMONIATED MERCURY. WEISSE QUECKSILBERSALBE.

[*Unguentum Hydrargyri Ammoniati, U. S. Ph.*]

(*Unguentum Hydrargyri præcipitati albi; Unguentum Hydrargyri amidato-bichlorati; Weisse Präcipitatsalbe; Weisse mercurialsalbe.*)

Prepare it from

Ammoniated Mercury, *one part* 1
Paraffin Ointment, *nine parts* 9

A white Ointment.

UNGUENTUM HYDRARGYRI CINEREUM.

MERCURIAL OINTMENT. GRAUE QUECKSILBERSALBE.

[*Unguentum Hydrargyri, U. S. Ph.; Blue Ointment.*]

(*Unguentum Neapolitanum; Graue mercurialsalbe.*)

Lard, *thirteen parts* 13
Mutton Suet, *seven parts* 7

Melt them together, at a gentle heat, and, when cold, take 3 parts of the mixture, and rub it, in an iron capsule, with

Mercury, *ten parts* 10

Add the Mercury in small portions at a time, waiting, after each addition until no more globules of mercury are visible to the naked eye. Finally, add the remainder of the fatty mass and mix intimately.

A bluish-gray Ointment, in which no globules of mercury can be seen by the naked eye.

Three Gm. of the Ointment, after the removal of the fats by ether, should yield nearly 1 Gm. of mercury.

UNGUENTUM HYDRARGYRI RUBRUM.

OINTMENT OF RED OXIDE OF MERCURY. ROTHE QUECKSILBERSALBE.

[*Unguentum Hydrargyri Oxidi Rubri, U. S. Ph.*]

(*Rothe mercurialsalbe; Rothe Präcipitatsalbe.*)

Prepare it from

Red Oxide of Mercury, *one part* 1
Paraffin Ointment, *nine parts* 9

A red Ointment.

UNGUENTUM KALII JODATI.

OINTMENT OF IODIDE OF POTASSIUM. KALIUMJODIDSALBE.

[*Unguentum Potassii Iodidi, U. S. Ph.*]

(*Jodkaliumsalbe.*)

Iodide of Potassium, *twenty parts* 20
Water, *ten parts* 10

dissolve and mix with

Paraffin Ointment, *one hundred and seventy parts* 170

A white Ointment.

UNGUENTUM LENIENS.

COLD CREAM. COLD-CREAM.

[*Unguentum Aquæ Rosæ; Ointment of Rose Water, U. S. Ph.*]

Prepare it from

White Wax, *four parts*	4
Spermaceti, *five parts*	5
Expressed Oil of Almond, *thirty-two parts*	32
Water, *sixteen parts*	16

To 50 Gm. of the Ointment add 1 drop of oil of rose.

Cold Cream is a soft and white ointment.

UNGUENTUM PARAFFINI.

PARAFFIN OINTMENT. PARAFFINSALBE.

(*Vaselinum; Vaseline.*)

Prepare it with

Solid Paraffin, *one part*	1
Liquid Paraffin, *four parts*	4

The mixture should be white, translucent, and of the consistence of an ointment; interspersed with small crystals, when examined under the microscope; and should melt between 35° and 45° C.

UNGUENTUM PLUMBI.

OINTMENT OF SUBACETATE OF LEAD. BLEISALBE.

[*Ceratum Plumbi Subacetatis, U. S. Ph.*]

Prepare it from

Lard, *ninety-two parts*	92
Solution of Subacetate of Lead, *eight parts*	8

A white Ointment.

UNGUENTUM PLUMBI TANNICI.

OINTMENT OF TANNATE OF LEAD. TANNIN-BLEISALBE.

(*Unguentum ad decubitum; Cataplasma ad decubitum; Gerbsaure Bleisalbe.*)

Tannic Acid, *one part*	1
Solution of Subacetate of Lead, *two parts*	2

Rub them to a smooth paste; then prepare an ointment by mixing the paste with

Lard, *seventeen parts* 17

The Ointment has a slight yellowish color. It should be prepared only when ordered.

UNGUENTUM ROSMARINI COMPOSITUM.

[Compound] Rosemary Ointment. Rosmarinsalbe.

(*Unguentum nervinum; Nervensalbe.*)

Lard, *sixteen parts* 16
Mutton Suet, *eight parts* 8
Yellow Wax, *two parts* 2
Expressed Oil of Nutmeg, *two parts* 2
Mix, and add to the finished Ointment,
Oil of Rosemary, *one part* 1
Oil of Juniper Berries, *one part* 1

The Ointment has a yellowish color.

UNGUENTUM SABINÆ.

Savine Ointment. Sabinasalbe.

(*Sadebaumsalbe.*)

Prepare it from
Extract of Savine, *one part* 1
Wax Ointment, *nine parts* 9

Savine Ointment should have a brown color.

UNGUENTUM TARTARI STIBIATI.

Tartar Emetic Ointment. Brechweinsteinsalbe.

(*Unguentum stibiatum; Unguentum Kali tartarici; Pockensalbe.*)

Prepare it from
Tartrate of Antimony and Potassium, *two parts* 2
Paraffin Ointment, *eight parts* 8

A white Ointment.

UNGUENTUM TEREBINTHINÆ.

TURPENTINE OINTMENT. TERPENTHINSALBE.

Prepare it from equal parts of
Common Turpentine,
Yellow Wax,
Oil of Turpentine.

A soft, yellow Ointment.

UNGUENTUM ZINCI.

OINTMENT OF OXIDE OF ZINC. ZINKSALBE.

[*Unguentum Zinci Oxidi, U. S. Ph.*]

Prepare it from

Common Oxide of Zinc, *one part*	1
Lard, *nine parts*	9

A white Ointment.

VERATRINUM.

VERATRINE. VERATRIN.

[*Veratrina, U. S. Ph.*]

A white, loose powder. It is very little soluble in boiling water; but the filtered liquid has an acrid taste, is free from bitterness, and changes the red color of litmus paper but slowly to blue. Veratrine is soluble in 4 parts of alcohol, and in 2 parts of chloroform; less soluble in ether. These solutions have a strongly alkaline reaction. With diluted sulphuric, or diluted hydrochloric acid, it yields solutions having a bitter and acrid taste. With boiling hydrochloric acid it affords a red solution. On triturating Veratrine with 100 parts of sulphuric acid, it communicates to the latter a greenish-yellow fluorescence which soon passes into a red color. When the sulphuric acid solution of Veratrine is spread out in a thin layer, and then sprinkled with powdered sugar, it acquires successively a yellow, green, and finally a blue color, which begins to fade after an hour.

Veratrine should be **very cautiously** preserved.

Largest single dose	**0.005 Gm.**
Largest daily dose	**0.02 Gm.**

VINUM.

WINE. WEIN.

German or foreign, either red or white, and especially sweet wines, prepared from the juice of the grape.

VINUM CAMPHORATUM.

WINE OF CAMPHOR. CAMPHERWEIN.

Camphor, *one part*	1
Alcohol, *one part*	1

Dissolve, and add gradually, with agitation,

Mucilage of Acacia, *three parts*	3
White Wine, *forty-five parts*	45

A turbid, whitish liquid. It should be shaken before being dispensed.

VINUM CHINÆ.

WINE OF CINCHONA. CHINAWEIN.

Tincture of Cinchona, *one hundred parts*	100
Glycerin, *one hundred parts*	100
Sherry Wine, *three hundred parts*	300

Mix, and set the mixture aside for three weeks ; then filter.

Wine of Cinchona should be clear, and of a brownish-red color.

VINUM COLCHICI.

WINE OF COLCHICUM. COLCHICUMWEIN.

[*Vinum Colchici Seminis ; Wine of Colchicum Seed, U. S. Ph.*]

(*Zeitlosensamenwein.*)

Colchicum Seeds, in coarse powder, *one part*	1
Sherry Wine, *ten parts*	10

Macerate for 8 days ; then express and filter.

Wine of Colchicum is clear and of a yellowish-brown color.

It should be **cautiously** preserved.

Largest single dose ..... **2.0 Gm.**
Largest daily dose ..... **6.0 Gm.**

VINUM IPECACUANHÆ.

WINE OF IPECAC. IPECACUANHAWEIN.

(*Brechwurzelwein.*)

Ipecac, in coarse powder, *one part*	1
Sherry Wine, *ten parts*	10

Macerate for 8 days ; then express and filter.
Wine of Ipecac is clear, and of a brownish-yellow color.
It should be cautiously preserved.

VINUM PEPSINI.

WINE OF PEPSIN. PEPSINWEIN.

(*Vinum pepticum.*)

Pepsin, *fifty parts*	50
Glycerin, *fifty parts*	50
Water, *fifty parts*	50
Rub them into a thin paste ; then add	
White Wine, *eighteen hundred and forty-five parts*	1845
Hydrochloric Acid, *five parts*	5

Set the mixture aside for six days, stirring frequently ; then filter.
A clear, yellowish liquid.

VINUM STIBIATUM.

ANTIMONIAL WINE. BRECHWEIN.

[*Vinum Antimonii, U. S. Ph.*]

(*Vinum emeticum ; Vinum Stibio-Kali tartarici.*)

Tartrate of Antimony and Potassium, *one part*	1
Sherry Wine, *two hundred and fifty parts*	250
Dissolve and filter.	

Antimonial Wine should be clear, and of a brownish-yellow color.
It should be cautiously preserved.

ZINCUM ACETICUM.

ACETATE OF ZINC. ZINKACETAT.

[*Zinci Acetas, U. S. Ph.*]

(*Essigsaures Zinkoxyd.*)

White, shining tablets, soluble in 2.7 parts of cold, and in 2 parts of hot water; also soluble in 35.6 parts of alcohol. The aqueous solution of the Salt has a feebly acid reaction, and is colored dark red by ferric chloride; with solution of potassa it yields a white precipitate soluble in an excess of the precipitant. This solution again affords a white precipitate, when treated with hydrosulphuric acid.

The aqueous solution (1=10) should yield a purely white precipitate with an excess of hydrosulphuric acid, and the filtrate should leave no fixed residue on evaporation and ignition. The Salt should not blacken when gently heated with sulphuric acid. When dissolved in 3 parts of water, the solution should not become cloudy, or but very slightly so, when diluted with more water.

Acetate of Zinc should be cautiously preserved.

ZINCUM CHLORATUM.

CHLORIDE OF ZINC. ZINKCHLORID.

[*Zinci Chloridum, U. S. Ph.*]

(*Chlorzink.*)

A white, very deliquescent powder, or in the form of small white rods, readily soluble both in water and in alcohol.

When heated, the Salt fuses and is partially volatilized, emitting white fumes, and at a red heat leaves a yellow residue. The aqueous solution has an acid reaction and yields a white precipitate with a solution of sulphide of ammonium; it also affords, both with nitrate of silver and with water of ammonia, white precipitates, soluble in an excess of water of ammonia.

A solution of the Salt in an equal weight of water, should be clear and colorless; the flocculent precipitate produced in this solution by the addition of 3 parts of alcohol should disappear on the addition of 1 drop of hydrochloric acid. The aqueous solution (1=10), acidulated with hydrochloric acid, should not be rendered cloudy by nitrate of barium, nor colored by hydrosulphuric acid. When 1 Gm. of Chloride of Zinc is dissolved in a mixture of 10 C.c. of water and 10 C.c. of water of ammonia, it should form a clear solution, which affords a purely

white precipitate with an excess of hydrosulphuric acid, while the filtrate should leave no residue on evaporation and ignition.

It should be cautiously preserved.

ZINCUM OXYDATUM.

Oxide of Zinc. Zinkoxyd.

[*Zinci Oxidum, U. S. Ph.*]

(*Zinkblumen.*)

A soft, white, amorphous powder, assuming a yellow color when strongly heated; insoluble in water, but soluble in acetic acid.

When Oxide of Zinc is shaken with water, the filtrate should not be rendered more than opalescent by nitrate of barium, or nitrate of silver. In 10 parts of acetic acid it should dissolve without effervescence. This solution should yield, with an excess of water of ammonia, a clear, colorless liquid which is not rendered cloudy when treated with oxalate of ammonium, or with phosphate of sodium; but, when covered with a layer of a solution of hydrosulphuric acid, it should afford a purely white precipitate.

ZINCUM OXYDATUM CRUDUM.

Common Oxide of Zinc. Rohes Zinkoxyd.

(*Zinkweiss; Käufliches Zinkoxyd.*)

A soft, white, amorphous powder, assuming a yellow color when strongly heated; insoluble in water.

It should dissolve in acetic acid without effervescence. The precipitate thrown down in this solution by solution of soda, should be soluble in an excess of the precipitant, yielding a clear, colorless solution. A solution of 0.2 Gm. of the Oxide in 2 Gm. of acetic acid, when cold, should not be affected by iodide of potassium.

It should not be employed for internal use.

ZINCUM SULFOCARBOLICUM.

Sulpho-carbolate of Zinc. Zinksulfophenolat.

(*Zincum sulphophenylicum; Carbolschwefelsaures Zinkoxyd; Phenylschwefelsaures Zinkoxyd; Sulfocarbolsaures Zinkoxyd.*)

Colorless, transparent, columnar or tabular crystals, effloresceing readily in the air, easily soluble in two parts of water or alcohol, yielding a liquid

of a feebly acid reaction, and which is colored violet on the addition of ferric chloride.

The aqueous solution (1=10) should not be rendered turbid by diluted sulphuric acid, or by oxalate of ammonium ; and but slightly so by nitrate of barium. The solution should afford, with an excess of solution of sulphide of ammonium, a white precipitate, and a filtrate leaving a residue which should volatilize with a strong heat.

On ignition 100 parts leave about 14.6 parts of oxide of zinc.

It should be **cautiously** preserved.

ZINCUM SULFURICUM.

SULPHATE OF ZINC. ZINKSULFAT.

[*Zinci Sulphas, U. S. Ph.*]

(*Weisser Vitriol ; Schwefelsaures Zinkoxyd.*)

Colorless crystals, slowly effloresceing in dry air ; soluble in 0.6 part of water ; insoluble in alcohol. The aqueous solution has an acid reaction and an acrid, nauseous taste. The Salt yields, with nitrate of barium, a white precipitate insoluble in hydrochloric acid. The aqueous solution is at first precipitated by solution of soda, but with an excess of the reagent it yields a clear, colorless liquid which again affords a white precipitate, when treated with hydrosulphuric acid.

The aqueous solution (1=20) should not be rendered turbid by nitrate of silver ; and after having been heated with chlorine water and hydrochloric acid it should not be colored red by sulphocyanide of potassium, nor affected by hydrosulphuric acid.

When 1 Grm. of the Salt is dissolved in 10 C.c. of water and 5 C.c. of water of ammonia, the Solution should be clear, and not be affected by phosphate of sodium, but should yield, with an excess of hydrosulphuric acid, a white precipitate, and a filtrate, leaving no residue on evaporation and ignition. The Salt should not evolve the odor of ammonia when treated with solution of soda. The aqueous solution, supersaturated with diluted sulphuric acid, should not give a blue color when mixed with metallic zinc and volumetric solution of starch.

Sulphate of Zinc should be **cautiously** preserved.

Largest single dose..... 1.0 Gm.

LIST OF REAGENTS

AND

TEST-SOLUTIONS.

[When the name of a reagent is simply mentioned in the text of the Pharmacopœia, it refers, if any is given, to the solution as directed to be made from the corresponding reagent in this list.]

Acetate of Sodium: *Natrium aceticum; Natriumacetat.*—Prepared by dissolving 1 part in 4 parts of Water.

Acetic Acid: *Acidum aceticum dilutum; Essigsäure.*—[Specific gravity 1.041.]

Absolute Alcohol: *Spiritus absolutus; Absoluter Weingeist.*—[Specific gravity 0.795 to 0.800.]

Alcohol: *Spiritus; Weingeist.*—[Specific gravity 0.830 to 0.834.]

Benzol: *Benzolum; Benzol.*—Boiling point 81 to 82° C.

Bichloride of Mercury: *Hydrargyrum bichloratum; Quecksilberchlorid.*—Prepared by dissolving 1 part in 19 parts of Water.

Blue Litmus Paper: *Charta exploratoria cœrulea; Blaues Lakmuspapier.*

Bromine: *Bromum; Brom.*

Carbonate of Ammonium: *Ammonium carbonicum; Ammoniumcarbonat.*—Prepared by dissolving 1 part of Carbonate of Ammonium in a mixture of 3 parts of Water and 1 part of Water of Ammonia.

Carbonate of Sodium: *Natrium carbonicum; Natriumcarbonat.*—Prepared by dissolving 1 part in 4 parts of Water.

Chloride of Ammonium: *Ammonium chloratum; Ammoniumchlorid.*—Prepared by dissolving 1 part in 9 parts of Water.

Chloride of Calcium: *Calcium chloratum; Calciumchlorid.*—Prepared by dissolving 1 part in 9 parts of Water.

Chlorine Water: *Aqua chlorata; Chlorwasser.*

Chloroform: *Chloroformium; Chloroform.*

Chromate of Potassium: *Kalium chromicum flavum; Gelbes Kaliumchromat.*—Prepared by dissolving 1 part in 9 parts of Water.

Curcuma Paper: *Charta exploratoria lutea; Curcumapapier.*

Diluted Sulphuric Acid: *Acidum sulfuricum dilutum; Verdünnte Schwefelsäure.*—[Officinal; specific gravity 1.110 to 1.114.]

Disulphide of Carbon: *Carbonicum sulfuratum; Schwefelkohlenstoff.*—Colorless, and leaving no residue on evaporation.

Ether: *Æther; Aether.*

Ferric Chloride [the officinal Solution of Chloride of Iron]: *Liquor Ferri sesquichlorati; Eisenchloridlösung.*

Ferricyanide of Potassium: *Kalium ferricyanatum; Kaliumferricyanat.*—Prepared by dissolving 1 part of the previously washed Crystals in 9 parts of Water, when required for use.

Ferrocyanide of Potassium: *Kalium ferrocyanatum; Kaliumferrocyanat.*—Prepared by dissolving 1 part in 9 parts of Water.

Fuming Nitric Acid: *Acidum nitricum fumans; Rauchende Salpetersäure.*

Hydrate of Calcium: *Calcium hydricum; Kalkhydrat.*

Hydrate of Magnesium: *Magnesium hydricum pultiforme; Breiförmiges Magnesiumhydrat.*—A pasty mass prepared by precipitating a solution of 3 parts of Sulphate of Magnesium in 20 parts of Water with Solution of Soda, washing well the precipitate and bringing it, by the addition of Water, to 10 parts.

Hydrochloric Acid: *Acidum hydrochloricum; Salzsäure.*—[Specific gravity 1.124.]

Hydrosulphuric Acid: *Aqua hydrosulfurata; Schwefelwasserstoffwasser.*—[A saturated solution of Sulphuretted Hydrogen Gas in Water.]

Iodide of Potassium: *Kalium jodatum; Kaliumjodid.*—Prepared by dissolving 1 part in 9 parts of Water, when required for use.

Lime Water: *Aqua calcariæ; Kalkwasser.*

Nitrate of Barium: *Baryum nitricum; Baryumnitrat.*—Prepared by dissolving 1 part in 19 parts of Water.

Nitrate of Silver: *Argentum nitricum; Silbernitrat.*—The Volumetric Solution of Nitrate of Silver.

Nitric Acid: *Acidum nitricum; Salpetersäure.*—[Specific gravity 1.185.]

Oxalate of Ammonium: *Ammonium oxalicum; Ammoniumoxalat.*—Prepared by dissolving 1 part in 19 parts of Water.

Oxalic Acid: *Acidum oxalicum; Oxalsäure.*—The air-dried Acid, volatilizing on platinum foil without a residue.

Permanganate of Potassium: *Kalium permanganicum; Kaliumpermanganat.*—The Volumetric Solution.

Phosphate of Sodium: *Natrium phosphoricum; Natriumphosphat.*—Prepared by dissolving 1 part in 19 parts of Water.

Red Litmus Paper: *Charta exploratoria rubra; Rothes Lakmuspapier.*

Sodium: *Natrium metallicum; Natriummetall.*

Solution of Acetate of Potassium: *Liquor Kalii acetici; Kaliumacetatlösung.*—[Officinal solution.]

Solution of Ferric Chloride: See *Ferric Chloride.*

Solution of Iodine: *Solutio Jodi.*—The Volumetric Solution of Iodine.

Solution of Starch: *Solutio Amyli; Stärkelösung.*—Prepared, when required for use, by shaking a piece of a white Wafer [made of pure flour and starch] in hot water, and filtering.

Solution of Soda [officinal]: *Liquor Natri caustici; Natronlauge.*

Subnitrate of Bismuth: *Bismutum subnitricum; Basisches Wismutnitrat.*

Sulphate of Calcium: *Calcium sulfuricum; Calciumsulfat.*—A saturated aqueous solution.

Sulphate of Magnesium: *Magnesium sulfuricum; Magnesiumsulfat.*—Prepared by dissolving 1 part in 9 parts of Water.

Sulphate of Iron (*Ferrous Sulphate*): *Ferrum sulfuricum; Ferrosulfat.*—Prepared by dissolving 1 part in 2 parts of Water, when required for use.

Sulphide of Ammonium (*Solution of Sulphide of Ammonium*): *Liquor Ammonii sulfurati; Schwefelammonium.*

Sulphite of Sodium: *Natrium sulfurosum; Natriumsulfit.*—Prepared by dissolving 1 part in 9 parts of Water, when required for use.

Sulphocyanide of Potassium: *Kalium sulfocyanatum; Kaliumsulfocyanat.*—Prepared by dissolving 1 part in 19 parts of Water.

Sulphuric Acid: *Acidum sulfuricum; Schwefelsäure.*—[Specific gravity 1.836 to 1.840.]

Tannic Acid: *Acidum tannicum; Gerbsäure.*—Prepared by dissolving 1 part in 19 parts of Water, when required for use.

Tartaric Acid: *Acidum tartaricum; Weinsäure.*—Prepared by dissolving 1 part in 4 parts of Water, when required for use.

Tin-filings: *Stannum raspatum; Zinnfeile.*

Water of Ammonia [officinal]: *Liquor Ammonii caustici; Ammoniak.*

Zinc (*metallic*): *Zincum; Zink.*—Should be free from arsenic.

VOLUMETRIC SOLUTIONS.

TEMPERATURE 15° C.

Volumetric Solution of Bromate of Potassium.

LIQUOR KALII BROMICI VOLUMETRICUS.

Kaliumbromatlösung.

Dissolve 1.667 Gm. of pure, dry Bromate of Potassium in Water to make 1 liter of Solution.

A mixture of 50 C.c., each, of this Solution and of Volumetric Solution of Bromide of Potassium, after being acidulated with 5 C.c. of Sulphuric Acid (specific gravity 1.836 to 1.840), develops as much bromine as will convert 0.0469 Gm. of Carbolic Acid into Tribromophenol.

Volumetric Solution of Bromide of Potassium.

LIQUOR KALII BROMATI VOLUMETRICUS.

Kaliumbromidlösung.

Dissolve 5.94 Gm. of pure, dry Bromide of Potassium in Water to make 1 liter of Solution.

[See the preceding.]

Volumetric Solution of Chloride of Sodium.

LIQUOR NATRII CHLORATI VOLUMETRICUS.

Zehntel-Normalkochsalzlösung.

Dissolve 5.85 Gm. of pure, dry Chloride of Sodium in Water to make 1 liter of Solution.

Ten C.c. of this Solution, after the addition of a few drops of test-solution of Chromate of Potassium, should require 10 C.c. of Volumetric Solution of Nitrate of Silver to produce a faintly red coloration.

Volumetric Hydrochloric Acid.

ACIDUM HYDROCHLORICUM VOLUMETRICUM.

Normalsalzsäure.

Dilute 146 Gm. of Hydrochloric Acid (specific gravity 1.124) with Water to make the liquid measure 1 liter.

To neutralize 1 Gm. of pure, freshly ignited Carbonate of Sodium should require 18.8 C.c. of Volumetric Hydrochloric Acid.

Volumetric Solution of Hyposulphite of Sodium.

LIQUOR NATRII THIOSULFURICI VOLUMETRICUS.

Zehntel-Normalnatriumthiosulfatlösung.

Dissolve 24.8 Gm. of Hyposulphite of Sodium in Water to make 1 liter of Solution.

23.6 C.c. of this Solution should decolorize 0.3 Gm. of Iodine.

Volumetric Solution of Iodine.

LIQUOR JODI VOLUMETRICUS.

Zehntel-Normaljodlösung.

Iodine, pure and dry, *twelve and seven-tenths grammes*..... 12.7
Iodide of Potassium, *twenty grammes* 20

Dissolve them in Water to make 1 liter of Solution.

Volumetric Solution of Nitrate of Silver.

LIQUOR ARGENTI NITRICI VOLUMETRICUS.

Zehntel-Normalsilberlösung.

Dissolve 17 Gm. of Fused Nitrate of Silver in Water to make 1 liter of Solution.

Volumetric Solution of Permanganate of Potassium.

LIQUOR KALII PERMANGANICI VOLUMETRICUS.

Kaliumpermanganatlösung.

Dissolve 1 Gm. Permanganate of Potassium in Water to make 1 liter of Solution.

0.1 Gm. of purest Iron Wire, when dissolved in diluted Sulphuric Acid, should require 56.2 C.c. of this Solution until a red coloration begins to make its appearance.

Solution of Phenolphtalein.

SOLUTIO PHENOLPHTALEÏNI.

Phenolphtaleïnlösung.

Phenolphtalein, *one gramme* 1
Dissolve it in
Diluted Alcohol, *one hundred grammes* 100

The Solution should be colorless.

Volumetric Solution of Potassa.

LIQUOR KALII HYDRICI VOLUMETRICUS.

Normalkalilösung.

A solution of pure Hydrate of Potassium (Potassa), free from carbonic acid.

To neutralize 1 Gm. of Oxalic Acid should require 15.9 C.c. of Volumetric Solution of Potassa.

Volumetric Solution of Starch.

LIQUOR AMYLI VOLUMETRICUS.

Jodzinkstärkelösung.

Starch, *four grammes* 4
Chloride of Zinc, *twenty grammes* 20
Water, *one hundred grammes* 100

Boil until the Starch is almost entirely dissolved, replacing the Water lost by evaporation ; then add
Iodide of Zinc, pure and dry, *two grammes* 2
adding sufficient Water to make the liquid measure 1 liter, and filter.

A colorless, slightly opalescent liquid.

Tincture of Cochineal.

TINCTURA COCCIONELLÆ.

Cochenille-Tinctur.

Cochineal, powdered, *three grammes* 3
Alcohol, *fifty cubic centimeters* 50
Water, *two hundred cubic centimeters* 200

Macerate and filter.

A reddish-yellow Solution. This Solution is employed as an indicator in the volumetric estimation of the carbonates of the alkalies.

TABLE A.

Designating the largest doses for an adult, which the physician must not exceed in his prescription, when intended for internal use, except he adds the exclamation point (!).

	Largest Single Dose.	Largest Daily Dose.
	Grammes.	Grammes.
Acetum Digitalis: Vinegar of Digitalis	2.0	10.0
Acidum Arsenicosum: Arsenious Acid	0.005	0.02
" Carbolicum: Carbolic Acid	0.1	0.5
Apomorphinum Hydrochloricum: Hydrochlorate of Apomorphine	0.01	0.05
Aqua Amygdalarum Amararum: Bitter Almond Water	2.0	8.0
Argentum Nitricum: Nitrate of Silver	0.03	0.2
Atropinum Sulfuricum: Sulphate of Atropine	0.001	0.003
Auro-natrium Chloratum: Chloride of Gold and Sodium	0.05	0.2
Cantharides: Cantharides	0.05	0.15
Chloralum Hydratum: Chloral (Hydrate)	3.0	6.0
Codeïnum: Codeine	0.05	0.2
Coffeïnum: Caffeine	0.2	0.6
Cuprum Sulfuricum: Sulphate of Copper	1.0	...
Extractum Aconiti: Extract of Aconite	0.02	0.1
" Belladonnæ: Extract of Belladonna	0.05	0.2
" Cannabis Indicæ: Extract of Indian Hemp	0.1	0.4
" Colocynthidis: Extract of Colocynth	0.05	0.2
" Digitalis: Extract of Digitalis	0.2	1.0
" Hyoscyami: Extract of Hyoscyamus	0.2	1.0
" Opii: Extract of Opium.	0.15	0.5
" Scillæ: Extract of Squill	0.2	1.0
" Strychni: Extract of Nux Vomica	0.05	0.15
Folia Belladonnæ: Belladonna Leaves	0.2	0.6
" Digitalis: Digitalis Leaves	0.2	1.0
" Stramonii: Stramonium Leaves	0.2	1.0
Fructus Colocynthidis: Colocynth	0.3	1.0
Gutti: Gambogo	0.3	1.0
Herba Conii: Conium Leaves	0.3	2.0
" Hyoscyami: Hyoscyamus Leaves	0.3	1.5
Hydrargyrum Bichloratum: Corrosive Chloride of Mercury	0.03	0.1
" Bijodatum: Red Iodide of Mercury	0.03	0.1
" Cyanatum: Cyanide of Mercury	0.03	0.1
" Jodatum: Green Iodide of Mercury	0.05	0.2
" Oxydatum: Red Oxide of Mercury	0.03	0.1
" Oxydatum via humida paratum: Yellow Oxide of Mercury	0.03	0.1
Jodoformium: Iodoform	0.2	1.0
Jodum: Iodine	0.05	0.2
Kreosotum: Creasote	0.1	0.5
Lactucarium: Lactucarium	0.3	1.0
Liquor Kalii Arsenicosi: Solution of Arsenite of Potassium	0.5	2.0

	Largest Single Dose.	Largest Daily Dose.
	Grammes.	Grammes.
Morphinum Hydrochloricum: Hydrochlorate of Morphine	0.03	0.1
" Sulfuricum: Sulphate of Morphine	0.03	0.1
Oleum Crotonis: Croton Oil	0.05	0.1
Opium: Opium	0.15	0.5
Phosphorus: Phosphorus	0.001	0.005
Physostigminum Salicylicum: Salicylate of Physostigmine	0.001	0.003
Pilocarpinum Hydrochloricum: Hydrochlorate of Pilocarpine	0.03	0.06
Plumbum Aceticum: Acetate of Lead	0.1	0.5
Santoninum: Santonin	0.1	0.3
Secale Cornutum: Ergot	1.0	5.0
Semen Strychni: Nux Vomica	0.1	0.2
Strychninum Nitricum: Nitrate of Strychnine	0.01	0.02
Summitates Sabinæ: Savine	1.0	2.0
Tartarus Stibiatus: Tartrate of Antimony and Potassium	0.2	0.5
Tinctura Aconiti: Tincture of Aconite	0.5	2.0
" Cantharidum: Tincture of Cantharides	0.5	1.5
" Colchici: Tincture of Colchicum	2.0	6.0
" Colocynthidis: Tincture of Colocynth	1.0	3.0
" Digitalis: Tincture of Digitalis	1.5	5.0
" Jodi: Tincture of Iodine	0.2	1.0
" Lobeliæ: Tincture of Lobelia	1.0	5.0
" Opii Crocata: Tincture of Opium and Saffron	1.5	5.0
" Opii Simplex: Tincture of Opium	1.5	5.0
" Strychni: Tincture of Nux Vomica	1.0	2.0
Tubera Aconiti: Aconite Root	0.1	0.5
Veratrinum: Veratrine	0.005	0.02
Vinum Colchici: Wine of Colchicum	2.0	6.0
Zincum Sulfuricum: Sulphate of Zinc	1.0	...

TABLE B.

Containing the names of Medicines which are usually called Poisons, and which must be preserved VERY CAUTIOUSLY *under lock and key.*

Acidum Arsenicosum	Arsenious Acid.
Atropinum Sulfuricum	Sulphate of Atropine.
Hydrargyrum Bichloratum	Corrosive Chloride of Mercury.
" Bijodatum	Red Iodide of Mercury.
" Cyanatum	Cyanide of Mercury.
" Jodatum	Green Iodide of Mercury.
" Oxydatum	Red Oxide of Mercury.
" Oxydatum via humida paratum	Yellow Oxide of Mercury.
" Præcipitatum Album	Ammoniated Mercury.
Liquor Kalii Arsenicosi	Solution of Arsenite of Potassium.
Phosphorus	Phosphorus.
Physostigminum Salicylicum	Salicylate of Physostigmine.
Strychninum Nitricum	Nitrate of Strychnine
Veratrinum	Veratrine.

TABLE C.

Names of Medicines which must be kept CAUTIOUSLY *and separately from the others.*

Acetum Digitalis	Vinegar of Digitalis.
Acidum Carbolicum	Carbolic Acid.
" Carbolicum Liquefactum	Liquefied Carbolic Acid.
" Chromicum	Chromic Acid.
" Hydrochloricum	Hydrochloric Acid.
" Hydrochloricum Crudum	Crude Hydrochloric Acid.
" Nitricum	Nitric Acid.
" Nitricum Fumans	Fuming Nitric Acid.
" Sulfuricum	Sulphuric Acid.
" Sulfuricum Crudum	Crude Sulphuric Acid.
Amylium Nitrosum	Nitrate of Amyl.
Apomorphinum Hydrochloricum	Hydrochlorate of Apomorphine.
Aqua Amygdalarum Amararum	Bitter Almond Water.
Argentum Nitricum	Nitrate of Silver.
" Nitricum cum Kalio Nitrico.	" of Silver with Nitrate of Potassium.
Auro-Natrium Chloratum	Chloride of Gold and Sodium
Bromum	Bromine.
Cantharides	Cantharides.
Cerussa	Carbonate of Lead.
Chloralum Hydratum	Chloral (Hydrate).
Chloroformium	Chloroform.
Codeïnum	Codeine.
Collodium Cantharidatum	Cantharidal Collodion.
Cuprum Oxydatum	Black Oxide of Copper.
" Sulfuricum	Sulphate of Copper.
" Sulfuricum Crudum	Crude Sulphate of Copper.
Euphorbium	Euphorbium.
Extractum Aconiti	Extract of Aconite.
" Belladonnæ	" of Belladonna.
" Cannabis Indicæ	" of Indian Hemp.
" Colocynthidis	" of Colocynth.
" Digitalis	" of Digitalis.
" Hyoscyami	" of Hyoscyamus.
" Opii	" of Opium.
" Sabinæ	" of Savine.
" Scillæ	" of Squill.
" Strychni	" of Nux Vomica.

Folia Belladonnæ	Belladonna Leaves.
" Digitalis	Digitalis Leaves.
" Stramonii	Stramonium Leaves.
Fructus Colocynthidis	Colocynth.
Gutti	Gamboge.
Herba Conii	Conium Leaves.
" Hyoscyami	Hyoscyamus Leaves.
Hydrargyrum Chloratum	Mild Chloride of Mercury.
" Chloratum Vapore Paratum.	Hydrosublimed Calomel.
Jodoformium	Iodoform.
Jodum	Iodine.
Kali Causticum Fusum.	Fused Potassa.
Kalium Bichromicum	Bichromate of Potassium.
" Jodatum	Iodide of Potassium.
Kreosotum	Creasote.
Lactucarium	Lactucarium.
Liquor Kali Caustici	Solution of Potassa.
" Natri Caustici	" of Soda.
" Plumbi Subacetici	" of Subacetate of Lead.
Lithargyrum	Oxide of Lead.
Minium	Red Oxide of Lead.
Morphinum Hydrochloricum	Hydrochlorate of Morphine.
" Sulfuricum	Sulphate of Morphine.
Natrium Jodatum	Iodide of Sodium.
Oleum Crotonis	Croton Oil.
" Sinapis	Volatile Oil of Mustard.
Opium	Opium.
Pilocarpinum Hydrochloricum	Hydrochlorate of Pilocarpine.
Plumbum Aceticum	Acetate of Lead.
" Aceticum Crudum	Crude Acetate of Lead.
" Jodatum	Iodide of Lead.
Pulvis Ipecacuanhæ Opiatus	Powder of Ipecac and Opium.
Radix Ipecacuanhæ	Ipecac.
Resina Jalapæ	Resin of Jalap.
Rhizoma Veratri	White Hellebore.
Santoninum	Santonin.
Semen Colchici	Colchicum Seed.
" Strychni	Nux Vomica.
Summitates Sabinæ	Savine.
Tartarus Stibiatus	Tartrate of Antimony and Potassium.
Tinctura Aconiti	Tincture of Aconite.
" Cannabis Indicæ	" of Indian Hemp.
" Cantharidum	" of Cantharides.
" Colchici	" of Colchicum.
" Colocynthidis	" of Colocynth.
" Digitalis	" of Digitalis.
" Jodi	" of Iodine.
" Ipecacuanhæ	" of Ipecac.
" Opii Benzoïca	Camphorated Tincture of Opium.

Tinctura Opii Crocata	Tincture of Opium and Saffron.
" Opii Simplex	" of Opium.
" Strychni	" of Nux Vomica.
" Veratri	" of White Hellebore.
Tubera Aconiti	Aconite Root.
" Jalapæ	Jalap.
Vinum Colchici	Wine of Colchicum.
" Ipecacuanhæ	" of Ipecac.
" Stibiatum	Antimonial Wine.
Zincum Aceticum	Acetate of Zinc.
" Chloratum	Chloride of Zinc.
" Sulfocarbolicum	Sulpho-carbolate of Zinc.
" Sulfuricum	Sulphate of Zinc.

TABLE OF SPECIFIC GRAVITIES

OF OFFICINAL LIQUIDS BETWEEN +12 AND 25° C., WHICH ARE TO BE VERIFIED IN THE REVISIONS OF THE PHARMACIES.

The Liquids which are not confined to a definite specific gravity at +15° C., but are allowed to vary to a certain extent, are allowed, also, to vary proportionately to the same extent, at each of the temperatures between +12 and +25° C.

	15° C.	12°.	13°.	14°.	15°.	16°.	17°.	18°.	19°.	20°.	21°.	22°.	23°.	24°.	25°.
Acidum Aceticum Dilutum	1.041	1.042	1.042	1.041	1.041	1.040	1.040	1.039	1.039	1.038	1.038	1.037	1.037	1.036	1.036
" Hydrochloricum	1.124	1.125	1.125	1.124	1.124	1.124	1.123	1.123	1.122	1.122	1.122	1.121	1.121	1.120	1.120
" Nitricum	1.185	1.187	1.186	1.185	1.185	1.184	1.183	1.183	1.182	1.181	1.181	1.180	1.179	1.179	1.178
" Phosphoricum	1.120	1.121	1.121	1.120	1.120	1.120	1.119	1.119	1.119	1.118	1.118	1.118	1.117	1.117	1.117
" Sulfuricum	1.836—1.840	1.841	1.840	1.839	1.838	1.837	1.836	1.835	1.834	1.833	1.832	1.830	1.829	1.828	1.827
" Sulfuricum Dilutum	1.110—1.114	1.114	1.113	1.113	1.112	1.112	1.111	1.111	1.110	1.110	1.109	1.109	1.108	1.108	1.107
Æther	0.724—0.728	0.728	0.727	0.727	0.726	0.725	0.724	0.723	0.722	0.721	0.719	0.718	0.717	0.716	0.715
" Aceticus	0.900—0.904	0.904	0.904	0.903	0.902	0.901	0.900	0.900	0.899	0.898	0.897	0.896	0.896	0.895	0.894
Chloroformium	1.485—1.489	1.492	1.490	1.489	1.487	1.485	1.483	1.481	1.479	1.477	1.475	1.473	1.472	1.470	1.469
Glycerinum	1.225—1.235	1.232	1.231	1.230	1.230	1.229	1.229	1.228	1.228	1.227	1.227	1.226	1.225	1.225	1.224
Liquor Aluminii Acetici	1.044—1.046	1.046	1.046	1.046	1.045	1.045	1.045	1.044	1.044	1.044	1.044	1.044	1.043	1.043	1.043
" Ammonii Acetici	1.032—1.034	1.034	1.034	1.033	1.033	1.033	1.033	1.032	1.032	1.032	1.032	1.031	1.031	1.031	1.031
" Ammonii Caustici	0.960	0.961	0.961	0.960	0.960	0.960	0.959	0.959	0.959	0.959	0.958	0.958	0.958	0.958	0.957
" Ferri Acetici	1.081—1.083	1.082	1.082	1.082	1.082	1.081	1.081	1.081	1.081	1.080	1.080	1.080	1.080	1.079	1.079
" Ferri Sesquichlorati	1.280—1.282	1.283	1.282	1.282	1.281	1.281	1.280	1.280	1.280	1.279	1.279	1.279	1.278	1.278	1.278
" Ferri Sulfurici Oxydati	1.428—1.430	1.431	1.430	1.430	1.429	1.428	1.428	1.427	1.426	1.426	1.425	1.424	1.424	1.423	1.422
" Kali Caustici	1.142—1.146	1.145	1.145	1.144	1.144	1.143	1.143	1.143	1.142	1.142	1.141	1.141	1.140	1.140	1.140
" Kalii Acetici	1.176—1.180	1.179	1.179	1.178	1.178	1.178	1.177	1.177	1.176	1.176	1.176	1.175	1.175	1.174	1.174
" Kalii Carbonici	1.330—1.334	1.333	1.333	1.332	1.332	1.332	1.331	1.331	1.330	1.330	1.330	1.329	1.329	1.328	1.328
" Natri Caustici	1.159—1.163	1.162	1.162	1.161	1.161	1.160	1.160	1.159	1.159	1.158	1.158	1.157	1.157	1.156	1.156
" Plumbi Subacetici	1.235—1.240	1.239	1.239	1.238	1.238	1.238	1.237	1.237	1.236	1.236	1.236	1.235	1.235	1.234	1.234
Mixtura Sulfurica Acida	0.993—0.997	0.997	0.997	0.996	0.995	0.995	0.994	0.993	0.992	0.991	0.990	0.989	0.989	0.988	0.987
Spiritus	0.830—0.834	0.834	0.834	0.833	0.832	0.831	0.830	0.830	0.829	0.828	0.827	0.826	0.826	0.825	0.824
" Ætherеus	0.807—0.811	0.811	0.811	0.810	0.809	0.808	0.807	0.806	0.805	0.805	0.804	0.803	0.803	0.802	0.801
" Ætheris Nitrosi	0.840—0.850	0.847	0.846	0.846	0.845	0.844	0.844	0.843	0.842	0.841	0.840	0.839	0.838	0.837	0.836
" Dilutus	0.892—0.896	0.896	0.896	0.895	0.894	0.893	0.893	0.892	0.891	0.890	0.889	0.888	0.887	0.887	0.886
Tinctura Opii Crocata	0.980—0.984	0.983	0.983	0.982	0.982	0.981	0.981	0.980	0.980	0.979	0.979	0.978	0.977	0.977	0.976
" Opii Simplex	0.974—0.978	0.978	0.977	0.976	0.976	0.975	0.975	0.974	0.974	0.973	0.973	0.972	0.972	0.971	0.971

TABLE

Of the Solubility of Chemical Preparations in Water, Alcohol, and Ether, in round numbers, at + 15° C., for practical use. [Also, the exact numbers according to the Text of the Pharmacopœia.]

	Water.	Alcohol.	Ether.	According to the Text.		
				Water.	Alcohol.	Ether.
Acidum Benzoïcum	400	....	...	372	.....	....
" Boricum	30	20	...	25	15	....
" Carbolicum	20	....	...	20	.....	....
" Citricum	1	1	50	0.54	1	50
" Pyrogallicum	3	....	...	2.3	.....	....
" Salicylicum	600	....	...	538	.....	....
" Tannicum	5	2	...	1	2	....
" Tartaricum	1	4	...	0.8	2.5	....
Alumen	12	....	...	10.5	.....	....
" Ustum	25	....	...	25	.....	....
Aluminium Sulfuricum	2	....	...	1.2	.....	....
Ammonium Carbonicum	4	....	...	4	.....	....
" Chloratum	4	....	...	3	.....	....
Argentum Nitricum	1	12	...	0.6	10.2	....
Atropinum Sulfuricum	1	3	...	1	3	....
Auro-natrium Chloratum	2	....	...	2	.....	....
Borax	18	....	...	17	.....	....
Bromum	40	....	...	40	.....	....
Chininum Bisulfuricum	12	35	...	11	32	....
" Hydrochloricum	40	4	...	34	3	....
" Sulfuricum	800	90	...	800	.....	....
Codeïnum	80	....	...	80	.....	....
Coffeïnum	80	50	...	80	50	....
Cuprum Sulfuricum	4	....	...	3.5	.....	....
Ferrum Lacticum	50	....	...	38.2	.....	....
" Sulfuricum	2	....	...	1.8	.....	....
Hydrargyrum Bichloratum	20	3	4	16	3	4
" Bijodatum	....	130	...	.....	130	....
" Cyanatum	20	20	...	12.8	14.5	....
Jodoformium	....	50	6	.....	50	5.2
Jodum	5000	10	3	5000	10	....
Kalium Aceticum	0.5	2	...	0.36	1.4	....
" Bicarbonicum	4	....	...	4	.....	....
" Bromatum	2	200	...	2	200	....
" Carbonicum	1	....	...	1	.....	....
" Chloricum	20	130	...	16	130	....
" Jodatum	1	12	...	0.75	12	....
" Nitricum	5	....	...	4	.....	....
" Permanganicum	25	....	...	20.5	.....	....

	Water.	Alcohol.	Ether.	According to the Text. Water.	Alcohol.	Ether.
Kalium Sulfuricum	12	....	...	10	.....	....
" Tartaricum	2	....	...	1.4	.....	....
Lithium Carbonicum	150	....	...	150	.....	....
Magnesium Sulfuricum	1	....	...	0.8	.....	....
Manganum Sulfuricum	2	....	...	0.8	.....	....
Morphinum Hydrochloricum	25	50	...	25	50	....
" Sulfuricum	20	....	...	14.5	.....	....
Natrium Aceticum	3	30	...	1.4	23	....
" Benzoïcum	2	....	...	1.5	.....	....
" Bicarbonicum	15	....	...	13.8	.....	....
" Bromatum	2	5	...	1.8	5	....
" Carbonicum	2	....	...	1.8	.....	....
" Chloratum	3	....	...	2.7	.....	....
" Jodatum	1	3	...	0.9	3	....
" Nitricum	2	50	...	1.5	50	....
" Phosphoricum	10	....	...	5.8	.....	....
" Salicylicum	1	6	...	0.9	6	....
" Sulfuricum	4	....	...	3	.....	....
Physostigminum Salicylicum	150	12	...	150	12	....
Plumbum Aceticum	3	30	...	2.3	28.6	....
" Jodatum	2000	....	...	2000	.....	....
Saccharum	0.5	....	...	0.5	.....	....
" Lactis	7	....	...	7	.....	....
Santoninum	5000	50	...	5000	44	....
Strychninum Nitricum	100	100	...	90	70	....
Tartarus Boraxatus	1	....	...	1	.....	....
" Depuratus	200	....	...	192	.....	....
" Natronatus	2	....	...	1.4	.....	....
" Stibiatus	20	....	...	17	.....	....
Thymolum	1200	1	...	1100	1	....
Veratrinum	....	4	...	.....	4	....
Zincum Aceticum	3	40	...	2.7	35.6	....
" Sulfocarbolicum	2	2	...	2	2	....
" Sulfuricum	1	....	...	0.6	.....	....

TABLE

For Converting Degrees of the Centigrade into Degrees of Fahrenheit's Scale.

C.°	F.°	C.°	F.°	C.°	F.°	C.°	F.°
−10°	+14.0°	+47°	116.6°	+104°	219.2°	+161°	321.8°
− 9	15.8	48	118.4	105	221.0	162	323.6
− 8	17.6	49	120.2	106	222.8	163	325.4
− 7	19.4	50	122.0	107	224.6	164	327.2
− 6	21.2	51	123.8	108	226.4	165	329.0
− 5	23.0	52	125.6	109	228.2	166	330.8
− 4	24.8	53	127.4	110	230.0	167	332.6
− 3	26.6	54	129.2	111	231.8	168	334.4
− 2	28.4	55	131.0	112	233.6	169	336.2
− 1	30.2	56	132.8	113	235.4	170	338.0
0	32.0	57	134.6	114	237.2	171	339.8
+ 1	33.8	58	136.4	115	239.0	172	341.6
2	35.6	59	138.2	116	240.8	173	343.4
3	37.4	60	140.0	117	242.6	174	345.2
4	39.2	61	141.8	118	244.4	175	347.0
5	41.0	62	143.6	119	246.2	176	348.8
6	42.8	63	145.4	120	248.0	177	350.6
7	44.6	64	147.2	121	249.8	178	352.4
8	46.4	65	149.0	122	251.6	179	354.2
9	48.2	66	150.8	123	253.4	180	356.0
10	50.0	67	152.6	124	255.2	181	357.8
11	51.8	68	154.4	125	257.0	182	359.6
12	53.6	69	156.2	126	258.8	183	361.4
13	55.4	70	158.0	127	260.6	184	363.2
14	57.2	71	159.8	128	262.4	185	365.0
15	59.0	72	161.6	129	264.2	186	366.8
16	60.8	73	163.4	130	266.0	187	368.6
17	62.6	74	165.2	131	267.8	188	370.4
18	64.4	75	167.0	132	269.6	189	372.2
19	66.2	76	168.8	133	271.4	190	374.0
20	68.0	77	170.6	134	273.2	191	375.8
21	69.8	78	172.4	135	275.0	192	377.6
22	71.6	79	174.2	136	276.8	193	379.4
23	73.4	80	176.0	137	278.6	194	381.2
24	75.2	81	177.8	138	280.4	195	383.0
25	77.0	82	179.6	139	282.2	196	384.8
26	78.8	83	181.4	140	284.0	197	386.6
27	80.6	84	183.2	141	285.8	198	388.4
28	82.4	85	185.0	142	287.6	199	390.2
29	84.2	86	186.8	143	289.4	200	392.0
30	86.0	87	188.6	144	291.2	201	393.8
31	87.8	88	190.4	145	293.0	202	395.6
32	89.6	89	192.2	146	294.8	203	397.4
33	91.4	90	194.0	147	296.6	204	399.2
34	93.2	91	195.8	148	298.4	205	401.0
35	95.0	92	197.6	149	300.2	206	402.8
36	96.8	93	199.4	150	302.0	207	404.6
37	98.6	94	201.2	151	303.8	208	406.4
38	100.4	95	203.0	152	305.6	209	408.2
39	102.2	96	204.8	153	307.4	210	410.0
40	104.0	97	206.6	154	309.2	211	411.8
41	105.8	98	208.4	155	311.0	212	413.6
42	107.6	99	210.2	156	312.8	213	415.4
43	109.4	100	212.0	157	314.6	214	417.2
44	111.2	101	213.8	158	316.4	215	419.0
45	113.0	102	215.6	159	318.2	216	420.8
46	114.8	103	217.4	160	320.0	217	422.6

LIST OF SYNONYMS.[1]

Synonyms.	Officinal Titles.
Abführlatwerge	Electuarium e Senna.
Abführmus	" " "
Abführpillen	Pilulæ Jalapæ.
Acetum Concentratum	Acidum Aceticum Dilutum.
" Crudum	Acetum.
" Glaciale	Acidum Aceticum.
" Plumbicum	Liquor Plumbi Subacetici.
" Saturninum	" " "
" Vini	Acetum.
Acidum Aceticum Concentratum	Acidum Aceticum.
" Boracicum	" Boricum.
" Gallo-tannicum	" Tannicum.
" Hydrochloratum	" Hydrochloricum.
" Muriaticum	" "
" Nitroso-nitricum	" Nitricum Fumans.
" Phenylicum	" Carbolicum.
" Santonicum	Santoninum.
" Sulfuricum Rectificatum	Acidum Sulfuricum.
Aconitknollen	Tubera Aconiti.
Aether	Æther.
Æther Petrolei	Benzinum Petrolei.
" Sulfuricus	Æther.
Aethylacetat	Æther Aceticus.
Aethylidenmilchsäure	Acidum Lacticum.
Aetzammoniak	Liquor Ammonii Caustici.
Aetzkali (Geschmolzenes)	Kali Causticum Fusum.
Aetz(kali)lauge	Liquor Kali Caustici.
Aetzkalk	Calcaria Usta.
Aetznatronlauge	Liquor Natri Caustici.
Aetzstein	Kali Causticum Fusum.
Aetzsublimat	Hydrargyrum Bichloratum.
Alant	Radix Helenii.
Alaun (Krystallisirter)	Alumen.
Alcohol Vini	Spiritus.
Aloë Capensis v. Lucida	Aloë.
Althee	Radix Althææ.

[1] German names are printed in Italics, Latin names in Roman.

Synonyms.	Officinal Titles.
Altheeblätter	Folia Althææ.
Altheesyrup	Syrupus Althææ.
Altheewurzel	Radix Althææ.
Ammoniacum Carbonicum	Ammonium Carbonicum.
" Cuprico-sulfuricum	Cuprum Sulfuricum Ammoniatum.
" Hydrochloratum	Ammonium Chloratum.
" " Ferratum	" " Ferratum.
" Solutum Anisatum	Liquor Ammonii Anisatus.
Ammoniak(gummi)harz, Persisches	Ammoniacum.
Ammoniak, Kohlensaures	Ammonium Carbonicum.
Ammoniakliniment	Linimentum Ammoniatum.
" *Campherhaltiges*	" " Camphoratum.
Ammoniakliquor	Liquor Ammonii Caustici.
" *Anishaltiger*	" " Anisatus.
Ammoniumeisenchlorid	Ammonium Chloratum Ferratum.
Ammoniumflüssigkeit, Essigsaure	Liquor Ammonii Acetici.
Ammonium Muriaticum Martiatum	Ammonium Chloratum Ferratum.
Amyläther, Salpetrigsaurer	Amylium Nitrosum.
Angelica	Radix Angelicæ.
Angelicaspiritus	Spiritus Angelicæ Compositus.
Anis, Gemeiner	Fructus Anisi.
Anisöl, Rectificirtes	Oleum Anisi.
Anthodia Cinæ	Flores Cinæ.
Antimonium Crudum	Stibium Sulfuratum Nigrum.
Antimonkali	Tartarus Stibiatus.
Antimonpentasulfid	Stibium Sulfuratum Aurantiacum.
Antimonylkaliumtartrat	Tartarus Stibiatus.
Apomorphin, Salzsaures	Apomorphinum Hydrochloricum.
Aqua Amygdalarum Amararum Concentrata	Aqua Amygdalarum Amararum.
" Calcariæ Ustæ	" Calcariæ.
" Calcis	" "
" Chlori	" Chlorata.
" Cinnamomi Spirituosa	" Cinnamomi.
" " Vinosa	" "
" Florum Naphæ	" Florum Aurantii.
" Fortis	Acidum Nitricum Crudum.
" Oxymuriatica	Aqua Chlorata.
" Picea	" Picis.
" Plumbica	" Plumbi.
" Saturnina	" "
Arcanum Duplicatum Depuratum	Kalium Sulfuricum.
Argentum Fusum Mitigatum	Argentum Nitricum cum Kalio Nitrico.
Argilla	Bolus Alba.
Arnica	Flores Arnicæ.
Aromatische Kräuter	Species Aromaticæ.
Arsenicum Album	Acidum Arsenicosum.
Arsenigsäureanhydrid	" "

Synonyms.	Officinal Titles.
Arsenigsäuregegengift	Antidotum Arsenici.
Arsenik, Weisser	Acidum Arsenicosum.
Asafoetidatinctur	Tinctura Asæfœtidæ.
Atropin, Schwefelsaures	Atropinum Sulfuricum.
Aurantia Immatura	Fructus Aurantii Immaturi.
Aurum Chloratum Natronatum	Auro-natrium Chloratum.
" Muriaticum natronatum	" "
Autenrieth'scher Umschlag	Unguentum Plumbi Tannici.
Axungia Porci	Adeps Suillus.
" Porcina	" "
Baccæ Cubebæ	Cubebæ.
" Juniperi	Fructus Juniperi.
" Lauri	" Lauri.
" Rhamni Catharticæ	" Rhamni Catharticæ.
" Spinæ Cervinæ	" " "
Bärlapp	Lycopodium.
Baldrian	Radix Valerianæ.
Balsam, Indischer	Balsamum Peruvianum.
" *Peruvianischer*	" "
Balsamum Indicum	" "
" Peruvianum Nigrum	" "
" Vitæ Hoffmanni	Mixtura Oleoso-balsamica.
Basilicumsalbe	Unguentum Basilicum.
Baumöl (Provencer-)	Oleum Olivarum.
" *Grünes*	" " Crudum.
Benzoëblumen	Acidum Benzoïcum.
Benzoëharz	Benzoë.
Bibergeil (Englisches oder Kanadisches)	Castoreum.
Bibernell	Radix Pimpinellæ.
Bienenwachs	Cera Flava.
Bilsenkrautextract	Extractum Hyoscyami.
Bisam	Moschus.
Bisamtinctur	Tinctura Moschi.
Bismuthum Hydrico-Nitricum	Bismutum Subnitricum.
Bittererde, Kohlensaure (Basisch-)	Magnesium Carbonicum.
" *Schwefelsaure*	" Sulfuricum.
" " *Entwässerte*	" " Siccum.
Bittermandelwasser, Concentrirtes	Aqua Amygdalarum Amararum.
Bittersalz	Magnesium Sulfuricum.
" *Entwässertes*	" " Siccum.
Bittertropfen	Tinctura Amara.
Blasenpflaster	Emplastrum Cantharidum Ordinarium.
Bleicarbonat (Basisches)	Cerussa.
Bleichkalk	Calcaria Chlorata.
Bleiextract	Liquor Plumbi Subacetici.
Bleioxyd	Lithargyrum.
" *Essigsaures*	Plumbum Aceticum.
Bleisalbe, Gerbsaure	Unguentum Plumbi Tannici.

Synonyms.	Officinal Titles.
Bleisubcarbonat	Cerussa.
Bleizucker (Roher)	Plumbum Aceticum Crudum.
Blutreinigungsthee	Species Lignorum.
Blutwurzel	Rhizoma Tormentillæ.
Boletus Chirurgorum	Fungus Chirurgorum.
" Igniarius	" "
Bolus, Weisser	Bolus Alba.
Borax	Borax.
Boraxsäure	Acidum Boricum.
Brechnuss	Semen Strychni.
Brechnussextract (mit Spiritus Bereitetes).	Extractum Strychni.
Brechnusstinctur	Tinctura Strychni.
Brechwurzelsyrup	Syrupus Ipecacuanhæ.
Brechwurzeltinctur	Tinctura Ipecacuanhæ.
Brechwurzelwein	Vinum Ipecacuanhæ.
Bromammonium	Ammonium Bromatum.
Bromkalium	Kalium Bromatum.
Bromnatrium	Natrium Bromatum.
Buchenholztheer	Pix Liquida.
Buchentheerkreosot	Kreosotum.
Butyrum Cacao	Oleum Cacao.
" Nucistæ	" Nucistæ.
Cacao-Fett oder -Oel	" Cacao.
Cajeputöl, Rectificirtes	" Cajeputi.
Calcaria	Calcaria Usta.
" Carbonica Præcipitata	Calcium Carbonicum Præcipitatum.
" Hypochlorosa	Calcaria Chlorata.
" Phosphorica	Calcium Phosphoricum.
" Soluta	Aqua Calcariæ.
" Sulfurica Usta	Calcium Sulfuricum Ustum.
Calciumsulfat, Gebranntes	" " "
Calomel	Hydrargyrum Chloratum.
" *Durch Dampf Bereitetes*	" " Vapore Paratum.
Calx Chlorata	Calcaria Chlorata.
" Viva	" Usta.
Calomelas	Hydrargyrum Chloratum.
" Vapore Paratum	" " Vapore Paratum.
Canthariden	Cantharides.
Cantharidenöl	Oleum Cantharidatum.
Cantharidenpflaster	Emplastrum Cantharidum Ordinarium.
Cantharidensalbe	Unguentum Cantharidum.
Cantharidentinctur	Tinctura Cantharidum.
Capita Papaveris	Fructus Papaveris Immaturi.
Capsulæ Papaveris	" " "
Carbo Præparatus	Carbo Ligni Pulveratus.
" Pulveratus	" " "
Cardamomen, Kleine	Fructus Cardamomi.
Cardamomum Malabaricum	" "

Synonyms.	Officinal Titles.
Cardamomum Minus	Fructus Cardamomi.
Carragaheen	Carrageen.
Carrageen	"
Caryophylli Aromatici	Caryophylli.
Castoreum Americanum	Castoreum.
" Anglicum	"
" Canadense	"
Cataplasma ad Decubitum	Unguentum Plumbi Tannici.
Ceratcalbe	" Cereum.
Ceresinum	Paraffinum Solidum.
Chilisalpeter	Natrium Nitricum.
Chinin, Salzsaures	Chininum Hydrochloricum.
" *Schwefelsaures*	" Sulfuricum.
" " *Saures*	" Bisulphuricum.
" " *Zweifach*	" "
Chininum Hydrochloratum	" Hydrochloricum.
" Muriaticum	" "
" Sulfuricum Acidum	" Bisulfuricum.
" " Basicum	" Sulfuricum.
" " Neutrale	" Bisulfuricum.
Chinioïdeum	Chinioïdinum.
Chloral	Chloralum Hydratum.
Chlorammonium	Ammonium Chloratum.
Chlorgoldnatron	Auro-natrium Chloratum.
Chlornatrium	Natrium Chloratum.
Chlorum Solutum	Aqua Chlorata.
Chlorwasserstoffmorphium	Morphinum Hydrochloricum.
Chlorwasserstoffsäure, Reine	Acidum Hydrochloricum.
" *Rohe*	" " Crudum.
Chlorzink	Zincum Chloratum.
Chokoladenpflaster	Emplastrum Fuscum Camphoratum.
Christpalmöl	Oleum Cocos.
Christpflaster	Emplastrum Fuscum Camphoratum.
Chromsäure (Krystallisirte)	Acidum Chromicum.
Chromsäureanhydrid	" "
Cineres Clavellati	Kalium Carbonicum Crudum.
Cocosöl	Oleum Cocos.
Collodium, Blasenziehendes	Collodium Cantharidatum.
Collodium Cantharidale	" "
Collodium, Elastisches	" Elasticum.
Collodium Flexile	" "
" Vesicans	" Cantharidatum.
Colocynthis	Fructus Colocynthidis.
Cortex Cinnamoni Chinensis	Cortex Cinnamoni.
" Pomorum Aurantii	" Fructus Aurantii.
" Rhamni Frangulæ	" Frangulæ.
Cremor Tartari	Tartarus Depuratus.
" " Solubilis	" Boraxatus.

Synonyms.	Officinal Titles.
Crystalli Tartari	Tartarus Depuratus.
Cuprum Ammoniacale	Cuprum Sulfuricum Ammoniatum.
Cyanquecksilber	Hydrargyrum Cyanatum.
Decoctum Salep	Mucilago Salep.
" Zittmannii Fortius	Decoctum Sarsaparillæ Compositum Fortius.
" " Mitius	" Sarsaparillæ Compositum Mitius.
Deutojoduretum Hydrargyri	Hydrargyrum Bijodatum.
Dorschleberthran	Oleum Jecoris Aselli.
Dreiblatt	Folia Trifolii Fibrini.
Dreifaltigkeitskraut	Herba Violæ Tricoloris.
Durchliegsalbe	Unguentum Plumbi Tannici.
Eibischthee	Radix Althææ.
Einfacher Syrup	Syrupus Simplex.
Eisenacetatlösung	Liquor Ferri Acetici.
Eisenchinin, Citronensaures	Chininum Ferro-citricum.
Eisenchloridtinctur, Aetherische	Tinctura Ferri Chlorati Ætherea.
Eisenextract, Aepfelsaures	Extractum Ferri Pomatum.
Eisenfeile	Ferrum Pulveratum.
Eisenflüssigkeit, Essigsaure	Liquor Ferri Acetici.
Eisenhutextract	Extractum Aconiti.
Eisenhuttinctur	Tinctura Aconiti.
Eisenjodürsyrup	Syrupus Ferri Jodati.
Eisenlactat	Ferrum Lacticum.
Eisenoxydsaccharat, Lösliches	Ferrum Oxydatum Saccharatum Solubile.
Eisenoxyd, Schwefelsaures, Flüssiges	Liquor Ferri Sulfurici Oxydati.
Eisenoxydul, Kohlensaures, Zuckerhaltiges	Ferrum Carbonicum Saccharatum.
" *Milchsaures*	" Lacticum.
" *Schwefelsaures*	" Sulfuricum.
" " *Entwässertes*	" " Siccum.
Eisenpulver	" Pulveratum.
Eisensulfat	" Sulfuricum.
Eisentinctur, Essigsaure, Aetherische	Tinctura Ferri Acetici Ætherea.
Eisenvitriol, Reiner	Ferrum Sulfuricum.
" *Roher*	" " Crudum.
Eisessig	Acidum Aceticum.
Electuarium Lenitivum	Electuarium e Senna.
Elixir Acidum Halleri	Mixtura Sulfurica Acida.
" ad Longam Vitam	Tinctura Aloës Composita.
" e Succo Glycyrrhizæ	Elixir e Succo Liquiritiæ.
" Paregoricum	Tinctura Opii Benzoïca.
" Pectorale	Elixir e Succo Liquiritiæ.
" Roborans Whythii	Tinctura Chinæ Composita.
Elixir, Saures	Mixtura Sulfurica Acida.
Elixir Viscerale Hoffmanni	Elixir Aurantiorum Compositum.
Emplastrum Album Coctum	Emplastrum Cerussæ.
" Diachylon Compositum	" Lithargyri Compositum.

Synonyms.	Officinal Titles.
Emplastrum Fuscum Ph. Bor.	Emplastrum Fuscum Camphoratum.
" Lithargyri Simplex	" Lithargyri.
" Matris	" Fuscum Camphoratum.
" Mercuriale	" Hydrargyri.
" Minii Adustum	" Fuscum Camphoratum.
" Nigrum	" " "
" Noricum	" " "
" Plumbi Compositum	" Lithargyri Compositum.
" " Simplex	" "
" Universale	" Fuscum Camphoratum.
" Vesicatorium Ordinarium	" Cantharidum Ordinarium.
Engelwurzel	Radix Angelicæ.
Engelwurzelspiritus, Zusammengesetzter	Spiritus Angelicæ Compositus.
Enzian	Radix Gentianæ.
Erde, Japanische	Catechu.
Ergotinum	Extractum Secalis Cornuti.
Eserinum Salicylicum	Physostigminum Salicylicum.
Essig, Concentrirter	Acidum Aceticum Dilutum.
Essignaphtha	Æther Aceticus.
Euphorbiumharz	Euphorbium.
Extractum Catholicum	Extractum Rhei Compositum.
" Glycyrrhizæ Crudum	Succus Liquiritiæ.
" " Depuratum	" " Depuratus.
" Hæmostaticum	Extractum Secalis Cornuti.
" Nucum Vomicarum Spirituosum	" Strychni.
" Panchymagogum	" Rhei Compositum.
" Strychni Spirituosum	" Strychni.
Farnkrautwurzel	Rhizoma Filicis.
Farnkrautwurzelextract	Extractum Filicis.
Feldkümmelkraut	Herba Serpylli.
Fenchelsamen	Fructus Fœniculi.
Fenchelholz	Lignum Sassafras.
Fenchelöl, Rectificirtes	Oleum Fœniculi.
Ferrichloridlösung	Liquor Ferri Sesquichlorati.
Ferri-kalium Cyanatum (Rubrum)	Kalium Ferricyanatum.
Ferrojodid	Ferrum Jodatum.
Ferrojodidsyrup	Syrupus Ferri Jodati.
Ferro-kalium Cyanatum (Flavum)	Kalium Ferrocyanatum.
Ferrum Muriaticum Oxydatum	Ferrum Sesquichloratum.
" Sesquichloratum Solutum	Liquor Ferri Sesquichlorati.
" Sulfuricum Venale	Ferrum Sulfuricum Crudum.
Feuerschwamm, Zubereiteter	Fungus Chirurgorum.
Fichtentheer	Pix Liquida.
Fieberklee	Folia Trifolii Fibrini.
Fieberkleeextract	Extractum Trifolii Fibrini.
Fieberrinde, Graue	Cortex Cascarillæ.
Fiebertropfen, Schwarze	Tinctura Chinioïdini.

Synonyms.	Officinal Titles.
Fingerhut	Folia Digitalis.
Fliederblumen	Flores Sambuci.
Fliegenholz	Lignum Quassiæ.
Flores Benzoës	Acidum Benzoïcum.
" Brayeræ Anthelminticæ	Flores Koso.
" Kosso	" "
" Lavendulæ	" Lavandulæ.
" Malvæ Silvestris	" Malvæ.
" " Vulgaris	" "
" Sulphuris	Sulfur Sublimatum.
" " Loti	" Depuratum.
Folia Arctostaphyli	Folia Uvæ Ursi.
" Cardui Benedicti	Herba Cardui Benedicti.
" Hyoscyami	" Hyoscyami.
Formylchlorid	Chloroformium.
Formyljodid	Jodoformium.
Formylum Trichloratum	Chloroformium.
Fowler'sche Arseniklösung	Liquor Kalii Arsenicosi.
Franzosenholz	Lignum Guajaci.
Freisamkraut	Herba Violæ Tricoloris.
Fructus Anisi Vulgaris	Fructus Anisi.
" Cardamomi Minoris	" Cardamomi.
" Cubebæ	Cubebæ.
" Papaveris	Fructus Papaveris Immaturi.
" Tamarindorum	Pulpa Tamarindorum Cruda.
Fucus Crispus	Carrageen.
Fungus Igniarius Præparatus	Fungus Chirurgorum.
Gallæ Halepenses	Gallæ.
" Levanticæ	"
" Turcicæ	"
Gambir (*-Katechu*)	Catechu.
Gartenthymian	Herba Thymi.
Gewürznelkenöl (*Rectificirtes*)	Oleum Caryophyllorum.
Gewürztinctur	Tinctura Aromatica.
Glätte	Lithargyrum.
Glandulæ Rottleræ	Kamala.
Glaubersalz	Natrium Sulfuricum.
" *Entwässertes*	" " Siccum.
Goldchlorid-natron	Auro-natrium Chloratum.
Guaraninum	Coffeïnum.
Gummi Mimosæ	Gummi Arabicum.
" Tragacantha	Tragacantha.
Gummi-resina Ammoniacum	Ammoniacum.
" Asafœtida	Asafœtida.
" Galbanum	Galbanum.
" Gutti	Gutti.
" Myrrha	Myrrha.
Gypsum Ustum	Calcium Sulfuricum Ustum.

Synonyms.	Officinal Titles.
Hamburger Pflaster	Emplastrum Fuscum Camphoratum.
Haschisch	Herba Cannabis Indicæ.
Haschischtinctur	Tinctura Cannabis Indicæ.
Hebra'sche (Blei-) Salbe	Unguentum Diachylon.
Heiligegeistwurzel	Radix Angelicæ.
Hepar Sulphuris ad Usum Internum	Kalium Sulfuratum.
Herba Althææ	Folia Althææ.
" Belladonnæ	" Belladonnæ.
" Centaurii Minoris	Herba Centaurii.
" Cicutæ	" Conii.
" Conii Maculati	" "
" Digitalis Purpureæ	Folia Digitalis.
" Farfaræ	" Farfaræ.
" Jaceæ	Herba Violæ Tricoloris.
" Lobeliæ Inflatæ	" Lobeliæ.
" Malvæ	Folia Malvæ.
" Melissæ	" Melissæ.
" Menthæ Crispæ	" Menthæ Crispæ.
" " Piperitæ	" " Piperitæ.
" Nicotianæ	" Nicotianæ.
" Salviæ	" Salviæ.
" Stramonii	" Stramonii.
" Trifolii Fibrini	" Trifolii Fibrini.
" Tussilaginis	" Farfaræ.
" Uvæ Ursi	" Uvæ Ursi.
Hexenmehl	Lycopodium.
Hirschhornsalz (Reines)	Ammonium Carbonicum.
Höllenstein	Argentum Nitricum.
" *Salpeterhaltiger*	" " cum Kalio Nitrico.
Hoffmann's Tropfen	Spiritus Æthereus.
Holzessig(-Säure)	Acetum Pyrolignosum Crudum.
Hopfen-Mehl oder -Staub	Glandulæ Lupuli.
Hydrargyrum Amidato-bichloratum	Hydrargyrum Præcipitatum Album.
" Ammoniato-muriaticum	" " "
" Bichloratum Corrosivum	" Bichloratum.
" Bijodatum Rubrum	" Bijodatum.
" Chloratum Mite	" Chloratum.
" " " Lævigatum	" "
" Jodatum Flavum	" Jodatum.
" Muriaticum Mite	" Chloratum.
" Oxydatum Rubrum	" Oxydatum.
Italienische Pillen	Pilulæ Aloëticæ Ferratæ.
Jalapenwurzel	Tubera Jalapæ.
Japanische Erde	Catechu.
Jodblei	Plumbum Jodatum.
Jodeisen	Ferrum Jodatum.
Jodkalium	Kalium Jodatum.
Jodkaliumsalbe	Unguentum Kalii Jodati.

Synonyms.	Officinal Titles.
Jodnatrium	Natrium Jodatum.
Jodquecksilber, Einfaches	Hydrargyrum Jodatum.
" *Gelbes*	" "
" *Rothes*	" Bijodatum.
" *Zweifach*	" "
Kali Aceticum	Kalium Aceticum.
" " Liquidum	Liquor Kalii Acetici.
" " Solutum	" " "
" Bicarbonicum	Kalium Bicarbonicum.
" Bichromicum	" Bichromicum.
" Bitartaricum Purum	Tartarus Depuratus.
" Borussicum	Kalium Ferrocyanatum.
" Carbonicum e Cineribus Clavellatis.	" Carbonicum Crudum.
" Carbonicum e Tartaro	" "
" " Solutum	Liquor Kalii Carbonici.
" Chloricum	Kalium Chloricum.
Kali, Chlorsaures	" "
" *Doppelt Chromsaures*	" Bichromicum.
" " *Kohlensaures*	" Bicarbonicum.
" *Essigsaures*	" Aceticum.
Kali Hydricum Fusum	Kali Causticum Fusum.
" " Solutum	Liquor Kali Caustici.
" Hydrobromicum	Kalium Bromatum.
" Hydrojodicum	" Jodatum.
Kali, Kohlensaures, Gereinigtes	" Carbonicum Crudum.
" " *Reines*	" "
" " *Saures*	" Bicarbonicum.
Kalilösung, Essigsaure	Liquor Kalii Acetici.
Kali Muriaticum Oxygenatum	Kalium Chloricum.
" Nitricum	" Nitricum.
Kalisalpeter	" "
Kali, Salpetersaures	" "
Kalischwefelleber	" Sulfuratum.
Kali, Schwefelsaures	" Sulfuricum.
Kaliseife, Rohe	Sapo Kalinus Venalis.
Kali, Sulfuricum	Kalium Sulfuricum.
" Tartaricum	" Tartaricum.
" Tartaricum Boraxatum	Tartarus Boraxatus.
Kali, Uebermangansaures	Kalium Permanganicum.
Kaliumaluminiumsulfat	Alumen.
Kaliumbitartrat	Tartarus Depuratus.
Kaliumhydratlösung	Liquor Kali Caustici.
Kalium-Natrium-Boryltartrat	Tartarus Boraxatus.
Kaliumsulfid	Kalium Sulfuratum.
Kali, Weinsaures	" Tartaricum.
" *Wein(stein)saures, Saures*	Tartarus Depuratus.
Kalkerde, Phosphorsaure	Calcium Phosphoricum.
Kalk, Kohlensaurer, Präcipitirter	" Carbonicum Præcipitatum.

Synonyms.	Officinal Titles.
Kalklösung	Aqua Calcariæ.
Kamillenblüthen, Gemeine	Flores Chamomillæ.
Kanneel	Cortex Cinnamomi.
Kochsalz	Natrium Chloratum.
Königskerzen	Flores Verbasci.
Krähenaugen	Semen Strychni.
Krähenaugenextract (Weingeistiges)	Extractum Strychni.
Krähenaugentinctur	Tinctura Strychni.
Krätzwurzel	Rhizoma Veratri.
Kräuter, Aromatische	Species Aromaticæ.
Kraftmehl	Amylum.
Kümmelöl, Rectificirtes	Oleum Carvi.
Kupferoxyd, Schwefelsaures	Cuprum Sulfuricum.
Kupfervitriol, Reiner	" "
" *Roher*	" " Crudum.
Kusso	Flores Koso.
Lac Sulphuris	Sulfur Præcipitatum.
Lactucarium Germanicum	Lactucarium.
Lakritzsaft	Succus Liquiritiæ.
Lapis Causticus Chirurgorum	Kali Causticum Fusum.
" Divinus	Cuprum Aluminatum.
" Infernalis	Argentum Nitricum Fusum.
" " Nitratus	" " cum Kalio Nitrico.
Latwerge, Eröffnende	Electurium e Senna.
Laudanum	Opium.
" Liquidum Sydenhami	Tinctura Opii Crocata.
Laugensalz, Flüchtiges	Ammonium Carbonicum.
Laxirtrank	Infusum Sennæ Compositum.
Lignum Quassiæ Surinamensis	Lignum Quassiæ.
" Sanctum	" Guajaci.
Limatura Martis Præparata	Ferrum Pulveratum.
Linimentum Volatile	Linimentum Ammoniatum.
" " Camphoratum	" Ammoniato-camphoratum.
Liquor Anodynus Martiatus	Tinctura Ferri Chlorati Ætherea.
" Stypticus Lofii	Liquor Ferri Sesquichlorati.
" Anodynus Mineralis Hoffmanni	Spiritus Æthereus.
" Chlori	Aqua Chlorata.
" Ferri Muriatici Oxydati	Liquor Ferri Sesquichlorati.
" Kali Acetici	" Kalii Acetici.
" " Carbonici	" " Carbonici.
" Terræ Foliatæ Tartari	" " Acetici.
Lithion, Kohlensaures	Lithium Carbonicum.
Lixivium Causticum	Liquor Kali Caustici.
Lupulin	Glandulæ Lupuli.
Magenelixir, Hoffmann'sches	Elixir Aurantiorum Compositum.
Magentropfen, Bittere	Tinctura Amara.
Magisterium Bismuthi	Bismutum Subnitricum.
Magnesia Alba	Magnesium Carbonicum.

Synonyms.	Officinal Titles.
Magnesia Carbonica	Magnesium Carbonicum.
" Citrica Effervescens	" Citricum Effervescens.
Magnesia, Citronensaure, Aufbrausende.	" " "
Magnesia Hydrico-carbonica	" Carbonicum.
Magnesia, Kieselsaure	Talcum.
" *Kohlensaure*	Magnesium Carbonicum.
" *Schwefelsaure*	" Sulfuricum
" " *Entwässerte*	" " Siccum.
Magnesia Sulfurica	" "
Magnesia, Weisse	" Carbonicum.
Magnesiumsilicat	Talcum.
Mandelwasser	Aqua Amygdalarum Amararum.
Meconium	Opium.
Mercurialsalbe, Graue	Unguentum Hydrargyri Cinereum.
" *Rothe*	" " Rubrum.
" *Weisse*	" " Album.
Mercurichlorid	Hydrargyrum Bichloratum.
Mercuricyanid	" Cyanatum.
Mercurijodid	" Bijodatum.
Mercurius Dulcis	" Chloratum.
" Jodatus Ruber	" Bijodatum.
" Præcipitatus Albus	" Præcipitatum Album.
" " Ruber	" Oxydatum.
" Sublimatus Corrosivus	" Bichloratum.
" Vivus	"
Merouro-Ammoniumchlorid	" Præcipitatum Album.
Mercurochlorid	" Chloratum.
Mercurojodid	" Jodatum.
Mimosengummi	Gummi Arabicum.
Mohn	Semen Papaveris.
Mohnsaft	Opium.
Morphium, Salzsaures	Morphinum Hydrochloricum.
" *Schwefelsaures*	" Sulfuricum.
Muscæ Hispanicæ	Cantharides.
Muscatblüthenöl	Oleum Macidis.
Muscatbutter	Balsamum Nucistæ.
Muscatnussöl	Oleum Nucistæ.
Muscatsamen	Semen Myristicæ.
Muscatsamenöl	Oleum Nucistæ.
Mutterharz	Galbanum.
Naphtha Aceti	Æther Aceticus.
" Vitrioli	"
Natriumcarbonat, Rohes	Natrium Carbonicum Crudum.
Natrium Chloratum Purum	" Chloratum.
Natriumhydratlösung	Liquor Natri Caustici.
Natrium-Kalium-Boryltartrat	Tartarus Boraxatus.
Natro-Kali Tartaricum	Tartarus Natronatus.
Natron, Benzoësaures	Natrium Benzoïcum.

Synonyms.	Officinal Titles.
Natron, Doppeltkohlensaures	Natrium Bicarbonicum.
" *Essigsaures*	" Aceticum.
" *Kohlensaures, Entwässertes*	" Carbonicum Siccum.
" " *Reines*	" "
" " *Rohes*	" " Crudum.
" " *Saures*	" Bicarbonicum.
" *Phosphorsaures*	" Phosphoricum.
" *Salicylsaures*	" Salicylicum.
Natronsalpeter	" Nitricum.
Natron, Salpetersaures	" "
" *Schwefelsaures*	" Sulfuricum.
" " *Entwässertes*	" " Siccum.
Natronweinstein	Tartarus Natronatus.
Natron, Zweifach Borsaures	Borax.
" " *Kohlensaures*	Natrium Bicarbonicum.
Natrum Aceticum	" Aceticum.
" Benzoïcum	" Benzoïcum.
" Biboracicum	Borax.
" Biboricum	"
" Bicarbonicum	Natrium Bicarbonicum.
" Carbonicum Crystallisatum Crudum	" Carbonicum Crudum.
" Carbonicum Depuratum	" "
" Hydricum Solutum	Liquor Natri Caustici.
" Muriaticum Purum	Natrium Chloratum.
" Nitricum	" Nitricum.
" Phosphoricum	" Phosphoricum.
" Salicylicum	" Salicylicum.
" Sulfuricum	" Sulfuricum.
Nelken	Caryophylli.
Nelkenöl, Rectificirtes	Oleum Caryophyllorum.
Neroliöl	" Aurantii Florum.
Nervensalbe	Unguentum Rosmarini Compositum.
Nitrum Cubicum	Natrium Nitricum.
" Depuratum	Kalium Nitricum.
Nürnberger Pflaster	Emplastrum Fuscum Camphoratum.
Nux Moschata	Semen Myristicæ.
" Vomica	" Strychni.
Oelsüss	Glycerinum.
Oleum Anthos	Oleum Rosmarini.
" Cassiæ	" Cinnamomi.
" Castoris	" Ricini.
" Cinnamomi Cassiæ	" Cinnamomi.
" de Cedro	" Citri.
" Florum Naphæ	" Aurantii Florum.
" Hyoscyami Coctum	" Hyoscyami Infusum.
" Lauri Expressum	" Lauri.
" " Unguinosum	" "

Synonyms.	Officinal Titles.
Oleum Laurinum	Oleum Lauri.
" Myristicæ	" Nucistæ.
" Neroli	" Aurantii Florum.
" Nucistæ Expressum	" Nucistæ.
" Palmæ Christi	" Ricini.
Orangenblüthenöl	Oleum Aurantii Florum.
Orangenschalen	Cortex Fructus Aurantii.
Orangen, Unreife	Fructus Aurantii Immaturi.
Ostritzwurzel	Rhizoma Imperatorii.
Pegu-Katechu	Catechu.
Perlmoos	Carrageen.
Perlsalz	Natrium Phosphoricum.
Perltang	Carrageen.
Pestessig	Acetum Aromaticum.
Petroleumäther	Benzinum Petrolei.
Pfefferminzkuchen	Rotulæ Menthæ Piperitæ.
Pfeffer, Türkischer	Fructus Capsici.
Pflasterkäfer	Cantharides.
Phenol	Acidum carbolicum.
Phenylalkohol	" "
Phenylsäure	" "
Pilokarpin, Salzsaures	Pilocarpinum Hydrochloricum.
Pilulæ Ferratæ Valleti	Pilulæ Ferri Carbonici.
" Italicæ Nigræ	" aloëticæ Ferratæ.
Pimpinelltinctur	Tinctura Pimpinellæ.
Pimpinellwurzel	Radix Pimpinellæ.
Piper Hispanicum	Fructus Capsici.
Plumbum Carbonicum	Cerussa.
" Hydrico-aceticum Solutum	Liquor Plumbi Subacetici.
" Hydrico-carbonicum	Cerussa.
" Oxydatum	Lithargyrum.
Pockensalbe	Unguentum Tartari Stibiati.
Pockholz	Lignum Guajaci.
Poma Colocynthidis	Fructus Colocynthidis.
Pomeranzenblüthensyrup	Syrupus Aurantii Florum.
Pomeranzenblüthenwasser	Aqua Florum Aurantii.
Pomeranzenschalentinctur	Tinctura Aurantii.
Pottasche, Reine	Kalium Carbonicum.
Präcipitat, Rother	Hydrargyrum Oxydatum.
Präcipitatsalbe, Rothe	Unguentum Hydrargyri Rubrum.
" *Weisse*	" " Album.
Präcipitat, Weisser	Hydrargyrum Præcipitatum Album.
Protojoduretum Hydrargyri	" Jodatum.
Provenceröl	Oleum Olivarum.
Pulvis Aërophorus Seydlitzensis	Pulvis Aërophorus Laxans.
" Antacidus	" Magnesiæ cum Rheo.
" Doweri	" Ipecacuanhæ Opiatus.
" Glycyrrhizæ Compositus	" Liquiritiæ Compositus.

Synonyms.	Officinal Titles.
Pulvis Infantum	Pulvis Magnesiæ cum Rheo.
" Pectoralis Kurellæ	" Liquiritiæ Compositus.
Quecksilber, Blausaures	Hydrargyrum Cyanatum.
Quecksilberoxyd, Präcipitirtes	" Oxydatum via Humida Paratum.
" *Rothes*	" Oxydatum.
Quecksilberpräcipitat, Gelber	" " via Humida Paratum.
" *Rother*	" Oxydatum.
Quecksilbersublimat	" Bichloratum.
Quecksilber, Versüsstes	" Chloratum.
Quendel, Römischer	Herba Thymi.
Radix Archangelicæ	Radix Angelicæ.
" Calami	Rhizoma Calami.
" Columbo	Radix Colombo.
" Enulæ	" Helenii.
" Filicis Maris	Rhizoma Filicis.
" Galangæ	" Galangæ.
" Glycyrrhizæ Echinata	Radix Liquiritiæ Mundata.
" " Hispanica	" Liquiritiæ.
" Graminis	Rhizoma Graminis.
" Hellebori Albi	" Veratri.
" Jalapæ	Tubera Jalapæ.
" Iridis Florentinæ	Rhizoma Iridis.
" Liquiritiæ Glabræ	Radix Liquiritiæ.
" " Russica	" " Mundata.
" Salep	Tubera Salep.
" Salsaparillæ	Radix Sarsaparillæ.
" Sassaparillæ	" "
" Tormentillæ	Rhizoma Tormentillæ.
" Valerianæ Minoris	Radix Valerianæ.
" " Montanæ	" "
" Veratri Albi	Rhizoma Veratri.
" Zedoariæ	" Zedoariæ.
" Zingiberis	" Zingiberis.
Rapsöl	Oleum Rapæ.
Reizsalbe	Unguentum Cantharidum.
Resina Benzoës	Benzoë.
" Colophonium	Colophonium.
" Empyreumatica Liquida	Pix Liquida.
Rhabarberwein	Tinctura Rhei Vinosa.
Ribkesches Kinderpulver	Pulvis Magnesiæ cum Rheo.
Roborwytt	Tinctura Chinæ Composita.
Rochelle-Salz	Tartarus Natronatus.
Rohrzucker	Saccharum.
Roob Juniperi	Succus Juniperi Inspissatus.
Rossfenchel	Fructus Phellandrii.
Ruhrwurzel	Rhizoma Tormentillæ.

Synonyms.	Officinal Titles.
Rutschpulver	Talcum.
Saccharum Saturni Depuratum	Plumbum Aceticum.
Sadebaumextract	Extractum Sabinæ.
Sadebaumsalbe	Unguentum Sabinæ.
Sadebaumspitzen	Summitates Sabinæ.
Saint-Germainthee	Species Laxantes.
Sal Amarum	Magnesium Sulfuricum.
" Ammoniacum Depuratum	Ammonium Chloratum.
" Anglicum	Magnesium Sulfuricum.
" Essentiale Tartari	Acidum Tartaricum.
Salmiak	Ammonium Chloratum.
Salmiakgeist	Liquor Ammonii Caustici.
Salmiak, Gereinigter	Ammonium Chloratum.
Salmiakspiritus	Liquor Ammonii Caustici.
Sal Mirabile Glauberi Depuratum	Natrium Sulfuricum.
Salpeter	Kalium Nitricum.
Sal Polychrestum Seignetti	Tartarus natronatus.
" Sedativum Hombergii	Acidum Boricum.
" Sodæ Crudus	Natrium Carbonicum Crudum.
" " Depuratus	" "
" Tartari	Kalium Carbonicum.
" Volatile Siccum	Ammonium Carbonicum.
Santonsäure	Santonium.
Sapo Niger	Sapo Kalinus Venalis.
" Viridis	" " "
Scharfe Salbe	Unguentum Cantharidum.
Schwanzpfeffer	Cubebæ.
Schwefeläther	Æther.
Schwefelantimon	Stibium Sulfuratum Nigrum.
Schwefelblüthe	Sulfur Sublimatum.
Schwefelblumen	" "
" *Gewaschene*	" Depuratum.
Schwefelkalium	Kalium Sulfuratum.
Schwefel, Präcipitirter	Sulfur Præcipitatum.
Schwefelsäure, Englische	Acidum Sulfuricum Crudum.
" *Gereinigte*	" Sulfuricum.
" *Concentrirte*	" "
Schwefelspiessglanz	Stibium Sulfuratum Nigrum.
Scorbutkraut	Herba Cochleariæ.
Seemoos	Carrageen.
Seesalz	Natrium Chloratum.
Seife, Grüne	Sapo Kalinus Venalis.
Seifenbalsam	Linimentum Saponato-Camphoratum.
Seignettesalz	Tartarus Natronatus.
Semen Amygdali Amarum	Amygdalæ Amaræ.
" Amygdali Dulce	" Dulces.
" Anisi Vulgaris	Fructus Anisi.
" Cardamomi Minoris	" Cardamomi.

Synonyms.	Officinal Titles.
Semen Carvi	Fructus Carvi.
" Cinæ	Flores Cinæ.
" Fœniculi	Fructus Fœniculi.
" Lycopodii	Lycopodium.
" Phellandrii Aquatici	Fructus Phellandrii.
" Sanctum	Flores Cinæ.
" Santonici	" "
Senf	Semen Sinapis.
Sennaaufguss, Zusammengesetzter	Infusum Sennæ Compositum.
Sennesmus	Electuarium e Senna.
Sevenkraut	Summitates Sabinæ.
Seydlitz's Pulver	Pulvis Aërophorus Laxans.
Seydschitz's (Bitter) Salz	Magnesium Sulfuricum.
Silberglätte	Lithargyrum.
Silberoxyd, Salpetersaures	Argentum Nitricum Fusum.
Silberschaum	" Foliatum.
Siliqua Vanillæ	Fructus Vanillæ.
Soda, Getrocknete	Natrium Carbonicum Siccum.
" *Krystallisirte*	" Carbonicum Crudum.
" *Reine*	" "
Solutio Arsenicalis Fowleri	Liquor Kalii Arsenicosi.
Spanischfliegenöl	Oleum Cantharidatum.
Spanischfliegenpflaster, Immerwährendes.	Emplastrum Cantharidum Perpetuum.
Species ad infusum Pectorale	Species Pectorales.
Speckstein	Talcum.
Sperma Ceti	Cetaceum.
Spiessglanzweinstein	Tartarus Stibiatus.
Spiritus	Spiritus.
Spiritus Ferri Chlorati Ætherens	Tinctura Ferri Chlorati Ætherea.
" Mindereri	Liquor Ammonii Acetici.
" Nitri Dulcis	Spiritus Ætheris Nitrosi.
" Nitri Fumans	Acidum Nitricum Fumans.
" Nitrico Ætherens	Spiritus Ætheris Nitrosi.
" Nitroso-æthereus	" " "
" Salis	Acidum Hydrochloricum Crudum.
" Salis Ammoniaci Anisatus	Liquor Ammonii Anisatus.
" Salis Ammoniaci Cansticus	" Ammonii Caustici.
" Terebinthinæ	Oleum Terebinthinæ.
" Theriacalis	Spiritus Angelicæ Compositus.
Spiritus Verdünnter	" Dilutus.
Spiritus Vini Rectificatissimus	Spiritus.
" Vini Rectificatus	" Dilutus.
Spirsäure	Acidum Salicylicum.
Stärke	Amylum.
Stahltropfen	Tinctura Ferri Pomata.
Steinsalz	Natrium Chloratum.
Stibio-Kali Tartaricum	Tartarus Stibiatus.
Stinkasant	Asa Fœtida.

Synonyms.	Officinal Titles.
Stinkasanttinctur	Tinctura Asæ Fœtidæ.
Streupulver	Lycopodium.
Strychnin, Salpetersaures	Strychninum Nitricum.
Sturmhutextract	Extractum Aconiti.
Sturmhutknollen	Tubera Aconiti.
Sturmhuttinctur	Tinctura Aconiti.
Sublimat	Hydrargyrum Bichloratum.
Süssholzsaft	Succus Liquiritiæ.
Süssholzwurzel	Radix Liquiritiæ Mundata.
Sulphur Auratum Antimonii	Stibium Sulfuratum Aurantiacum.
" Stibiatum Aurantiacum	" " "
Summitates Absinthii	Herba Absinthii.
" Meliloti	" Meliloti.
Syrup, Einfacher	Syrupus Simplex.
Syrupus Albus	" "
" Capillorum Veneris	" Aurantii Florum.
" Capitum Papaveris	" Papaveris.
" Diacodii	" "
" Emulsivus	" Amygdalarum.
" Glycyrrhizæ	" Liquiritiæ.
" Sacchari	" Simplex.
Talg	Sebum Ovile.
Tamarinden	Pulpa Tamarindorum Cruda.
Tamarindi	" " "
Tannin	Acidum Tannicum.
Tartarus Emeticus	Tartarus Stibiatus.
" Tartarisatus	Kalium Tartaricum.
" Vitriolatus Depuratus	" Sulfuricum.
Terebinthina Communis	Terebinthina.
Terra Foliata Tartari	Kalium Aceticum.
" Foliata Tartari Crystallisata	Natrium Aceticum.
Terra Japonica	Catechu.
Teufelsdreck	Asa Fœtida.
Theer	Pix Liquida.
Thein	Coffeïnum.
Theïnum	"
Theobrominum	"
Theriakgeist	Spiritus Angelicæ Compositus.
Thonerdeacetatlösung	Liquor Aluminii Acetici.
Thymiankampher	Thymolum.
Thymianöl, Rectificirtes	Oleum Thymi.
Thymiansäure	Thymolum.
Tinctura Meconii	Tinctura Opii Simplex.
" Rhei Darelii	" Rhei Vinosa.
" Seminis Colchici	" Colchici.
" Thebaica	" Opii Simplex.
" Tonico-nervina Bestuscheffii	" Ferri Chlorati Ætherea.
Tollkirschblätter	Folia Belladonnæ.

Synonyms.	Officinal Titles.
Tollkirschextract	Extractum Belladonnæ.
Trochiscen	Trochisci.
Umschlagkräuter	Species Emollientes.
Unguentum ad Decubitum	Unguentum Plumbi Tannici.
" ad Fonticulos	" Cantharidum.
" Album Simplex	" Cerussæ.
" Diachylon Hebræ	" Diachylon.
" Hebræ	" "
" Hydrargyri Amidato-bichlorati	" Hydrargyri Album.
" Hydrargyri Præcipitati Albi.	" " "
" Irritans	" Cantharidum.
" Neapolitanum	" Hydrargyri Cinereum.
" Nervinum	" Rosmarini Compositum.
" Plumbi Hydrico-carbonici	" Cerussæ.
" Plumbi Subcarbonici	" "
" Stibiatum	" Tartari Stibiati.
" Stibio-Kali Tartarici	" " "
Universalpflaster	Emplastrum Fuscum Camphoratum.
Vallet'sche Pillen	Pilulæ Ferri Carbonici.
Vaseline	Unguentum Paraffini.
Vaselinum	" "
Vierräuberessig	Acetum Aromaticum.
Vinum Emeticum	Vinum Stibiatum.
" Pepticum	" Pepsini.
" Stibio-Kali Tartarici	" Stibiatum.
Vitriol, Blauer	Cuprum Sulfuricum Crudum.
" *Cyprischer*	" " "
" *Grüner*	Ferrum Sulfuricum Crudum.
Vitriolöl	Acidum Sulfuricum Crudum.
Vitriolum Cupri	Cuprum Sulfuricum Crudum.
" Martis	Ferrum Sulfuricum Crudum.
" " Purum	" "
Vitriol, Weisser	Zincum Sulfuricum.
Wacholderbeeröl	Oleum Juniperi.
Weinessig	Acetum.
Weinsteinrahm	Tartarus Depuratus.
Weinsteinsäure	Acidum Tartaricum.
Wismuthoxyd, Salpetersaures, Basisches	Bismutum Subnitricum.
Wohlverleihblüthen	Flores Arnicæ.
Wohlverleihblüthentinctur	Tinctura Arnicæ.
Wolfsmilch	Euphorbium.
Wurmfarnextract	Extractum Filicis.
Wurmfarnwurzel	Rhizoma Filicis.
Zeitlosensamenwein	Vinum Colchici.
Zeitlosentinctur	Tinctura Colchici.
Zeltchen	Trochisci.
Zimmtkassie	Cortex Cinnamomi.

Synonyms.	Officinal Titles.
Zincum Sulfophenylicum	Zincum Sulfocarbolicum.
Zinkblumen	" Oxydatum.
Zinkoxyd, Carbolschwefelsaures	" Sulfocarbolicum.
" *Essigsaures*	" Aceticum.
" *Käufliches*	" Oxydatum Crudum.
" *Phenylschwefelsaures*	" Sulfocarbolicum.
" *Schwefelsaures*	" Sulfuricum.
" *Sulfocarbolsaures*	" Sulfocarbolicum.
Zinksulfocarbolat	" "
Zinkvitriol	" Sulfuricum.
Zinkweiss	" Oxydatum Crudum.
Zittmann'sches Decoct, Schwächeres	Decoctum Sarsaparillæ Compositum Mitius.
" " *Stärkeres*	" Sarsaparillæ Compositum Fortius.
Zittwerblüthen	Flores Cinæ
Zittwersamen	" "
Zuckersäfte	Syrupi.
Zugpflaster	Emplastrum Cantharidum Perpetuum.

INDEX

OF THE LATIN AND GERMAN OFFICINAL TITLES.

INDEX

OF ENGLISH AND UNOFFICINAL LATIN TITLES.

[This Index contains, besides the English terms, all Latin titles taken from the U. S. Pharmacopœia which differ from those of the German Pharmacopœia, also the systematic names of plants and animals in the original text.]